

SEP 26 1930

NATION'S BUSINESS



OCTOBER • 1930



The Railroad Holding
Company Explained

COVER • The Telephone Pioneer • Page 6

MORE THAN 320,000 CIRCULATION

the **STOP** FIRE with **R-W** AUTOMATIC Fire Door Equipment

Automatic closing . . . that's the certain protection afforded by R-W equipment. The doors close themselves at any temperature desired; they cannot fail! When closed, FyeR-Wall doors stop the passage of fire. Constructed with heavy corrugated galvanized sheets with thick sheet-asbestos between, yet they cost no more than tin-clad doors. No maintenance cost; and guaranteed for 25 years!

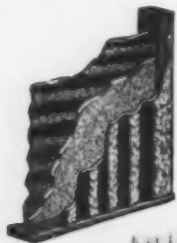
The label of the Underwriters Laboratories on this R-W equipment entitles you to 15% to 25% lower insurance rates. R-W Fire Door Equipment meets every conceivable condition; provides certain protection; brings tangible and important economies.

Consult an R-W engineer; write for catalog.

Richards-Wilcox Mfg. Co.

"A HANGER FOR ANY DOOR THAT SLIDES"
AURORA, ILLINOIS, U.S.A.

Branches: New York Chicago Boston Philadelphia Cleveland Cincinnati
Indianapolis St. Louis New Orleans Des Moines Minneapolis Kansas City
Los Angeles San Francisco Omaha Seattle Detroit Atlanta Pittsburgh
Milwaukee Richards-Wilcox Canadian Co., Ltd., London, Ont., Montreal, Winnipeg



Note rigid construction of Fye-R-Wall doors with heavy steel frame. They cost no more than tin-clad doors.

50 years
1880/1930



"Quality leaves its imprint"

International
Fire Prevention
Week
October 5 to 11

When Se
As the B
The A B
He wh
meets
operat
sional
Since La
Cheap S

Did cl
Mr. L
perha
blame

Why Ad
Senat
en fed
trans
sees th

Big Eve
Here
Mr. A
cents
as lo

He Too
When
gave h
much
put th

James A
An o
execu

New Yo
An a
those
West
that u

Light F
If yo
accu
cerns
you e

General
Branch
St. Lou
Boston,
Tower I
Atlanta,

NATION'S BUSINESS for October

VOLUME 18



NUMBER 11

CONTENTS

	PAGE		PAGE
When Selling Regains Its Courage....MERLE THORPE	9	Making Men Into Merchants.....E. C. SAMS	43
As the Business World Wags.....EDITORIALS	11	<i>The president of the J. C. Penney Company offers some comments on the chain store as a training ground for merchants</i>	
The ABC of Rail Holding Companies. OLIVER WESSON	15	Dulling the Axe of Dismissal...EDWARD S. COWDRICK	47
<i>He who would follow current events intelligently when Congress meets must understand railroad holding companies and their operation. They will occupy an important place in congressional debates and actions</i>		We Pay a Visit to Busy Baltimore....PAUL MCCREA	51
Since Last We Met.....	18	How Far Does the Drought Extend?	
Cheap Silver Means Reduced World Buying Power		WILLIAM BOYD CRAIG	54
JOHN HAYS HAMMOND	20	Solving World Highway Problems...JAMES W. BROOKS	62
<i>Did cheap silver have an unsung part in the recent depression? Mr. Hammond, famous mining engineer, believes it did—perhaps a greater part than many causes that were more widely blamed. Cheap silver reduced world buying power, he says</i>		The Map of the Nation's Business...FRANK GREENE	68
Why Add to the Federal Power?...ROBERT B. SMITH	25	Common Sense Is the Best Subsidy	
<i>Senator Couzens, of Michigan, has introduced bills to strengthen federal control of communications and to regulate interstate transmission of power. In this interview he explains why he sees these steps as necessary and no trespass on state rights</i>		W. GERALD HOLMES	74
Big Events Make Little Stir....C. E. KENNETH MEES	28	The Iron Industry Comes Home...TULLY NETTLETON	84
<i>Here is an interesting study in public psychology. The world, Mr. Mees finds, has usually been alarmed about the wrong events. After reading it you may want to readjust your views as to just what are the important questions of the day</i>		<i>The fact that New England is becoming an iron and steel center led a newspaper man to delve into history. He found a romantic story. New England was the first iron center of the country in a day when pirates were the best paying customers</i>	
He Took an Idea to Market...WILLIAM A. MCGARRY	31	The Small Retailer's Real Problem.....J. A. EDGAR	96
<i>When Cason Callaway was graduated from college, his father gave him a dollar and told him to go to work. The dollar wasn't much help but the younger Callaway understood X-forces. He put them to work for him</i>		How to Make Your Town Grow.....CARL GOERCH	105
James A. Farrell, Master of Steel...OSCAR KING DAVIS	34	How Chambers Help Schools...SAMUEL ENGLE BURR	114
<i>An opportunity to meet one of the most retiring of present-day executives, the president of the United States Steel Corporation</i>		Why Auto Builders Pool Patents...PAUL H. HAYWARD	122
New York Is a Farming State. JARED VAN WAGENEN, JR.	37	Radio Conquers the Canadian Wilds	
<i>An article that will correct your impressions if you are one of those who speak of the "industrial East" and the "agricultural West". Incidentally Mr. Van Wagenen himself tills a farm that was first established in 1800</i>		JAMES MONTAGNES	128
Light Has Been Trained to Work. HARRISON E. HOWE	40	Topics from the Business Press...PAUL H. HAYWARD	134
<i>If your competitor finds a way to operate more cheaply and accurately than you can, you will feel the results. Many concerns are already doing this, using a new tool, light. Perhaps you can use it, too</i>		News of Organized Business....WILLARD L. HAMMER	139
		Ten Cents Grows Into \$10,000.....JAMES L. WRIGHT	146
		What I've Been Reading.....WILLIAM FEATHER	150
		Does the Trade Conference Work?	
		WILLIAM BOYD CRAIG	158
		An Industry's Human Repair Shop...FRANK J. TAYLOR	168
		There's Real Recreation in Art	
		BENJAMIN FRANKLIN OLSON	174
		On the Business Bookshelf.....	184
		What Wall Street Is Talking About...M. S. RUKEYSER	189
		Through the Editor's Specs.....	214

MERLE THORPE, Editor and Publisher

Managing Editor, WARREN BISHOP
Director of Advertising, GUY SCRIVNER



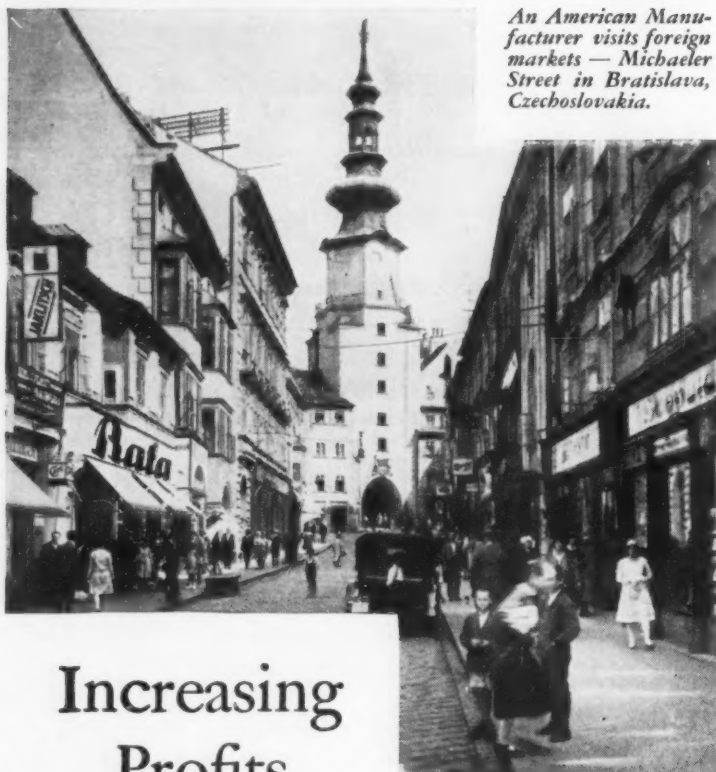
Business Manager, J. B. WYCKOFF
Circulation Managers, O. A. BROWN, L. F. HURLEY

General Office—Washington, Chamber of Commerce Building.

Branch Offices—New York, Graybar Bldg. Detroit, General Motors Bldg.
St. Louis, Chamber of Com. Bldg. San Francisco, Merchants Exchange Bldg.
Boston, 80 Federal St. Dallas, 1101 Commerce St. Cleveland, Terminal
Tower Bldg. Philadelphia, Guarantee Trust Bldg. Chicago, First Natl. Bldg.
Atlanta, Chamber of Com. Bldg. Pittsburgh, Chamber of Com. Bldg.

As the official magazine of the National Chamber this publication carries authoritative notices and articles in regard to the activities of the Chamber; in all other respects the Chamber cannot be responsible for the contents thereof or for the opinions of writers.

SUBSCRIPTION RATES: Three years, \$7.50; one year, \$3.00. Please notify us promptly of change of address—Nation's Business, Washington, D. C.



An American Manufacturer visits foreign markets — Michaeler Street in Bratislava, Czechoslovakia.

Increasing Profits

© Ewing Galloway

A MANUFACTURER who purchased raw material from commission merchants desired to visit European markets and make his purchases directly.

He did not wish to carry a large amount of cash but since he did not know in what countries he would buy; from whom he would buy; in what quantities; nor on what terms; he felt that the financial obstacles of the trip would be insurmountable.

He brought his problem to the Irving and after the nature of his expected purchases were outlined, we recommended an assignable documentary letter of credit for an amount in dollars equal to the maximum amount that he intended to spend.

The money was made available by drafts on the Irving ranging from sight to 120 days and permitted him to assign portions of the credit to various sellers under widely ranging selling terms.

This method of financing resulted in more favorable prices for his raw materials and consequently gave him increased profits from his manufactured product.

IRVING TRUST COMPANY

Out-of-Town Office—Woolworth Building
New York

Next Month's Authors

MUCH has been written about the farm situation, but it is a subject of so many ramifications and of such changing complexion that it is constantly inspiring new and worth-while comment and study. Especially deserving of attention from the business community are the reflections of William Jardine, former secretary of the Department of Agriculture and a successful business man as well. He gives his views of the farmer's best road to profits in the November NATION'S BUSINESS.

Of importance to every one interested in the automobile industry—and who is not, nowadays?—will be A. R. Pinci's article describing a unique way to turn the used car into money—one which would enable dealers to realize on their investments in "unused transportation."

"I quit my white-collar job," writes another and anonymous contributor in the November issue. Why he quit and with what results he tells entertainingly and well.

THIS MONTH'S COVER

Painted by Franklin Booth

INTO a world still marveling at its own progress the infant telephone was born. Few paused to do it reverence. The telegraph, whose child it was, had already looped its new wires across the nation, clattering messages at undreamed speed. Giant steam engines hurried factory production along at a faster pace. Railroads poured a new commerce into the cities.

The world was busy adjusting itself to these new tools and the complexities they presented—the need for speed, the need for thinking in larger numbers and handling diversified products, the necessity of dealing with strangers at vast distances through the impersonal mediums of letter or telegraph.

The Telephone Pioneers saw the need for a means by which men's personalities might touch across space, a means of direct contact for the transmission of ideas, of plans, of commands.

So they took up their task. Staunchedly they worked to solve problems of transmission, to unite scattered units, to meet the growing challenge for service.

They humanized business. They achieved that complete annihilation of time and distance which permits man-to-man dealing by business men anywhere on the civilized face of the earth.



NATION'S BUSINESS



A MAGAZINE FOR BUSINESS MEN



When Selling Regains Its Courage

IS OUR vaunted American selling only a fair-weather phenomenon? Has it no stamina? Does it cave in, crumple up and take the count at the first blow?

It would seem so.

For years the world has watched with amazement, not unmixed with envy, the selling forces of America in action. We have modestly acknowledged the applause. We knew we were good.

And we were. American selling was hard-hitting, tireless, resourceful, enthusiastic. It not only created demands but it helped buyers to find the means to satisfy those demands. It raised standards of living overnight, and in the joy of accomplishment it sang as it worked.

Came the stock-market squall of last October. Hesitation. Overcaution. Pessimism. Fear. Rumors of failures and panic. The spirit of Buying depressed.

Did Selling roll up its sleeves and eagerly welcome a trial of its strength and resourcefulness? It did not. It joined the mulligrubbers. It crowded the wailers at the wailing wall. It acted like a tired old man after a long walk on a sultry day.

What a pitiable spectacle of America's strong man lugubriously repeating hackneyed alibis. "Overproduction," was a favorite one. But overproduction became a fact only as underconsumption out-generalled Selling. And on its own field, for it had cracked the hard nut of underconsumption many a time. But Selling gave up. Too fat to fight. It said, "Nobody to buy; nothing to buy it with."

Shortly before, millions were eager for more and better food, warmer clothing, more comfortable shelter; millions desired greater conveniences; millions yearned for the luxuries of travel, art, music, books. They were willing to work hard and exchange their labor and services for those things.

Yet selling accepted the strange story that overnight millions lost these desires, that a miracle had happened and human nature had undergone a remarkable change. Nor were "the

consumers broke." The record since then belies that assumption.

No; "selling" false rumors and calamity put us in the hospital. The real selling forces of the nation lost heart and nerve. Some openly joined the enemy. Others lent aid and comfort by disloyal inactivity.

"It's a great time to call upon sales and advertising managers," said a business man to me the other day. "They'll sit back and listen to you for two hours. A year ago you got a five-minute appointment for three weeks from Thursday. Too busy, selling. But today, nothing doing, and nothing to do. All the time in the world."

There probably was never a time in recent history when selling was at such a low ebb in the United States.

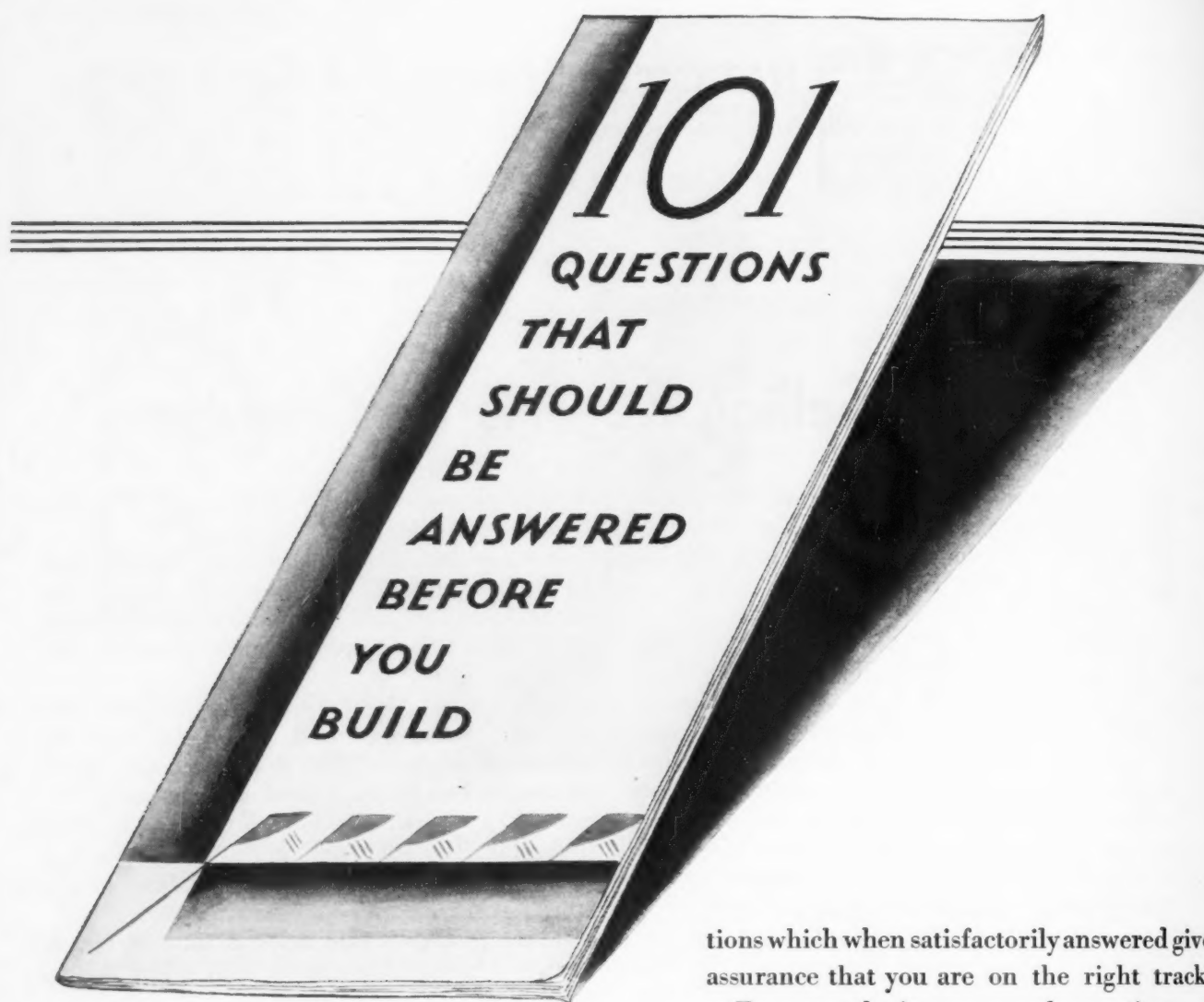
To the everlasting credit of American Selling there are a few who have kept the faith, who have relished a stout fight and who are coming through as victors. Such has always been the case. Calamity, war, depression, flood or fire disturbs the settled order. The churning process brings up from the bottom strange faces and strange names.

When the fair-weather sun shines again, there are new faces in an industry's picture—new leaders at the helm. Never doubt, you will see their names in the business headlines of tomorrow. They have come up from behind, energizing new ideas with a fine courage while old leaders were proving to themselves that it couldn't be done.

But the pity of it is that a glorious march toward greater comfort for greater numbers halts because the motive power of American business—our selling forces—lost vision and courage.

When American Selling regains its old-time courage, then get ready for better times.

Merce Thorne



ONE hundred and one" questions . . . all have a direct bearing on any new project you may contemplate . . . whether it be complete plant, an extension to present facilities, a branch plant or warehouse.

This booklet provides you with a brief memory check which largely eliminates the possibility of overlooking important factors relative to major building investments . . . brief and to the point, the booklet contains the type of practical ques-

tions which when satisfactorily answered give assurance that you are on the right track.

For example, it covers such questions as: location; type of building, whether multi-story or single story; insurance rates; whether to buy or generate power; floor loads to be required, . . . 101 questions in all—based on over half a century of building experience.

Let this booklet be of practical assistance to you . . . even before you have any preliminary plans made. It will be promptly sent to you personally—without obligation, of course. Wire, phone, or send the convenient memo below.

THE AUSTIN COMPANY

Architecture • Engineering • Construction • Cleveland



NEW YORK CHICAGO PHILADELPHIA NEWARK DETROIT CINCINNATI
PITTSBURGH ST. LOUIS SEATTLE PORTLAND PHOENIX
THE AUSTIN COMPANY OF CALIFORNIA, LTD.: LOS ANGELES, OAKLAND AND SAN FRANCISCO
THE AUSTIN COMPANY OF TEXAS: DALLAS THE AUSTIN COMPANY OF CANADA, LTD.



Memo to The Austin Company, Cleveland— ☐ You may send, marked for my personal attention, a copy of "101 Questions."

We are interested in a _____ project _____ sq. ft.

Individual _____ Firm _____ City _____ NB 10-30

When writing to THE AUSTIN COMPANY please mention Nation's Business

NATION'S BUSINESS



Published at Washington by the Chamber of Commerce of the United States

MERLE THORPE, Editor

As the Business World Wags

THUS WE MAY SEE, QUOTH HE,
HOW THE WORLD WAGS— *As You Like It.*

Where Business Can Help



THE drought moved quickly from the front pages of newspapers. It was a seven-day sensation and then the public interest was turned to other things.

But in tens of thousands of American homes it is still a vital thing. Families which normally would look forward to a winter of comfort with some money in the bank and plenty of food in the cellar and on the pantry shelves will now face hardship.

The agricultural economists tell us that there will be no shortage of food for the cities. It is the farmers themselves who are more apt to suffer.

The burning up of thousands of home gardens is a small thing when the United States strikes its annual economic balance, but it means much to the man who had hoped for potatoes in the bin and canned vegetables in the larder.

It is necessary to go back to 1901—and perhaps even farther—for a parallel to the recent drought. Then as now the consequences were grave and long-lasting. Perhaps we know better now how to deal with such economic situations. Certainly the Government moved more promptly to organize what relief could be given.

Credit will be the main factor. Storekeepers in rural communities will find the demands upon them for credit extended to the utmost. Banks in districts where agriculture is the leading industry will be called upon to exercise forbearance and they, in turn, may call upon the larger banks and upon the Federal Reserve Board.

If ever there was a time when business had a chance to furnish some real farm relief it will be in the regions most affected by the lack of rain.

A Chain of Chains



SEARS, Roebuck and Company have turned over the management of the food departments in two of their department stores to Kroger, the second largest food chain in the

country. It is further announced that the food departments in all the Sears, Roebuck chain of retail stores may possibly be put under Kroger management.

The project, a striking move in distribution, is a recognition of the value of specialists; of the fact that a good merchant of shoes would not immediately and inevitably be a good merchant of shirts.

A chain of chains is an interesting idea. Suppose a chain of shoe stores should join with a chain of shirt stores and so on until we had under one roof units of half a dozen chains supplying all the things that men wear. We should have specialization plus a wide range of goods on sale.

Without the Lucky Breaks



THE business visitor responded to the usual question of "How's Business?" with this parable:

"I play golf and enjoy it. My normal game is somewhere around the middle 90's. The other day everything was just right, my temper and my digestion and the weather and the greens and all the things that help or hinder the game. The result was that I made a 79.

"Now suppose when I'm asked what sort of a game I play, I should say 'Oh, I break 80'. Suppose I should feel that everything was wrong every time I don't land in the 70's. What kind of time would I have as a golfer?

"And that's been one of the troubles with business. Many companies 'broke 80' in the first half of 1929 and because they failed to do it in the first half of 1930 they think they are completely ruined when, the truth is, they're playing a good steady game and improving a little bit every day."

Where Is the Depression?



THE business golfer would have found, however, that not all industries made their best scores in the first half of 1929. *Printers' Ink*, in a recent issue, publishes a list of the

net earnings for 1929 and 1930 of 150 companies which employ national advertising to sell their goods. Of the 150 there were 40, more than 25 per cent, which showed a gain, a rather remarkable number in view of the general feeling about the state of business in the first six months of the year.

What lines of industry should gain, is a natural question. The gains are not all or even largely in any one

line. Perhaps the rewards go to the successful and to those who added efforts in any line of business. Here are the successful forty (remember please that it is only a part of a list of national advertisers):

Addressograph International
Allis-Chalmers
American Chain
American Chicle
American Safety Razor
American Writing Paper
Associated Oil
Autostrap Safety Razor
Bridgeport Machine
Briggs Manufacturing Co.
Caterpillar Tractor
Cluett, Peabody
Coca Cola
Colgate-Palmolive-Peet
Condé Nast
Cream of Wheat
Curtis Publishing
Endicott-Johnson
General Foods
Indiana Limestone

International Business Machines
International Salt
International Shoe
Kelvinator
Kimberly-Clark
Lily-Tulip Cup
Melville Shoe
Paramount-Publix
Penick & Ford
Pet Milk
Radio Keith Orpheum
Scott Paper
Sun Oil
Sweets Company
United Fruit
U. S. Gypsum
Wheatworth, Inc.
White Rock Mineral Springs
Wm. Wrigley, Jr.
Zonite Products

Business the Civilizer



IT IS a tribute to his resourceful versatility that Dwight W. Morrow's opinions on business and diplomacy should be attended with equal interest. That he should measure the effectiveness of the one service in terms of the other is altogether natural. At a luncheon given to a group of Rotarians he said:

As a somewhat inconspicuous member of a rather conspicuous business house and since then as an amateur diplomat, I have found that the business of international understanding is being carried on by business as it cannot be carried on by any other means.

The conclusion gets down to the broader significance of business as a civilizing influence in human society. The very exchange of goods for goods, and goods for services presupposes a basis of intelligent accord and good will.

As Mr. Morrow phrased it, "When men first began to exchange, to trade or bargain, instead of using force to capture what they wanted, the first great challenge to barbarism had been made."

It Is Always With Us



THE price level has again assumed a reverberant position in the public forum. Its power to claim attention has been in eclipse for a number of years due to the relative stability of prices in general. The "high cost of living" had almost become an historical term. From 1923 to 1929 the level of wholesale prices and the cost of living remained remarkably stationary.

In some quarters there was a tendency to credit the Reserve Bank authorities with some inscrutable and divine omniscience by virtue of which they maintained a proper level of prices. That the highest officials of the Reserve System denied all authorship of the miracle

did not dampen the ardor of many students who felt that another bureau should be created to keep prices at the right level. The drastic fluctuations of the post-war period provided these prophets with sufficient voltage to command some consideration for their schemes.

During the last twelve months the average of wholesale prices as measured by the index of the Bureau of Labor Statistics has declined twelve per cent. The incidence of this drop upon specific commodities is much more severe than the average indicates. Copper is begging for consumer attention at the lowest prices for years.

Sugar has touched its lowest point since 1865. Silver is bowed down by the lowest price in its long history as a precious metal. Rubber exchanges for a price which is a reproach to the authors of the Stevenson Plan. Every one knows that agricultural prices are not what they should be.

The significant thing about declining prices is that they are the cross of the producers while rising prices are the cup of woe to the consumers. At the present time we are seeking relief for producers. Ten years ago the high cost of living was on trial in the attempt to win succor for the consumer. No matter which way the price pendulum swings it seems to leave more distress than joy in its wake.

A Glut of Business Facts?



SIR JOSIAH STAMP'S address to the Bond Club in New York constitutes in part a tribute to America's insatiable appetite for fact-finding and fact-display. A world figure in economic thought himself, he expressed astonishment at the mass of charts, graphs, and statistical data with which the executive now surrounds himself. "I doubt the ability of these executives," he said, "to absorb and analyze these facts in ratio to their supply."

The dimensions of a vast headache are latent in Sir Josiah's apprehension of a saturation point for economic information.

Where all business leaders seem subjected to intensive pressure on every statistical front, it is easy to set the consequences per capita to an earlier measure of a head-on collision with facts,

Theirs to see eye to eye,
Theirs but to read and sigh,
Theirs not to reason why,
Heads must be cumbered.
Charts to the right of them,
Graphs to the left of them,
Facts in front of them,
Sorted and numbered.

Burdened as business may be with its new-found riches of plain, fancy and assorted information, Sir Josiah probably does not intend to urge an individual quota law to assure proper assimilation of facts.

As for the indicated strain on mental capacities, there is ready comfort in the physical law which declares that

the container must be larger than the thing contained.

Texas Gas for Midwest Cities



THE construction of a 1250-mile pipe line from the Texas Panhandle to serve communities in the central states with gas from Texas wells has given timely support to the steel industry, as well as solving a problem in long-distance distribution. Texas gas will be no stranger in mid-west meters, for the 700-mile Insull-Doherty pipe line brings gas from Amarillo to Chicago.

Local transportation of gas through small-diameter pipe is no novelty, of course. The commercial significance of selling the output of a thousand wells at wholesale through 24-inch trunk mains, as does the Missouri-Kansas Company, is fairly obvious. Through its subsidiary, the Panhandle Eastern Company, the Missouri-Kansas Pipe Line Company will be able to serve industrial consumers in Illinois, Indiana and Kentucky. Another market includes utilities that use natural gas to enrich the manufactured product, and retail outlets are also provided for small communities without local wells. Potential daily capacity is rated at 250,000,000 cubic feet.

An advertisement of the Company declares that "long-term market contracts are now in operation, and other long-term contracts have been secured covering important markets in Illinois and Missouri to be supplied from the 1250-mile line," which has its terminus in Indiana near Indianapolis.

To those who knew Indiana's flourishing "gas belt" towns in the 'nineties, the entry of the Texas product would suggest the superfluity of bringing coals to Newcastle. Time and change—and pipe lines.

Can't We Tell More Truth?



ALVAN T. SIMONDS of the Simonds Saw and Steel Company of Fitchburg, is not one of the professional Pollyannas of industry to whom business is always good and going to be better and who, when things do go wrong, fall back on the phrase "fundamentally sound" as their last line of defense.

In fact on more than one occasion, in this magazine and elsewhere, Mr. Simonds has sounded a storm warning when others could see no cloud on the horizon.

It is comforting then to find Mr. Simonds, in his little bulletin "Looking Ahead," predicting an increase in industrial production as about to start and to continue through 1931 and into 1932, reaching a greater height than the top of 1929. But does that mean that such a growing volume of industrial production will inevitably lead to another rapid decline, in short, that prosperity *must* be followed by depression?

Mr. Simonds has an interesting suggestion to make to business leaders. He says:

In the New York World August 17, Henry Ford stated that



DING IN THE NEW YORK HERALD TRIBUNE

"Let the People Rule"

he thought the country had ceased being sick and that it is now well and will soon be strong and active again, but that people do not know this. To many his forecast will be conclusive. Mr. Ford is to be commended for having made this statement. It is to be regretted that sometime in July or August 1929 he did not make a similar statement in regard to business falling off for at that time business had fallen off.

Mr. Simond's suggestion might well be called to the attention of the professional Pollyannas.

Color, Color Everywhere



WHAT the newspapers occasionally describe as a "riot of color" is developing in American kitchens, if the color conference held in New York is to be taken seriously. And apparently it was, for it was attended by 80 representatives of business organizations dealing in housewares, ranges, hardware, and refrigerators. Sponsored by the New York *Herald Tribune*, the meeting disclosed the fact that there are 1,517 colors now being applied to pots, pans, kettles, ranges and similar products which "in the old parsimonious days" were merely considered objects of utility.

One complication, so the meeting was told, proceeds from the desire of the American housewife to match housewares in department stores with fabrics of diverse

hues. By vote of the conference, Mrs. William Meloney, of the *Herald Tribune* staff, was delegated to form a temporary committee which is to begin the drafting of a standardization program.

The possibilities were suggestively defined in the statement that there are now 119 shades of the color known as "buff."

Of course, it is too much to expect the extremity of simplification indicated in the specification of the man in the play who wanted "any color so it's green." But there may be a compensating satisfaction in the knowledge that it is now possible for pot to call kettle something else than black.

Old Ways in New Guises



MANY men whose hair is now graying or slowly disappearing have stood barefooted on a Main Street corner while a traveling vendor, his wares lit up by a kerosene torch, interested his customers by adding one article after another to the pile that could be bought for a dollar.

The lure was powerful. Just as the boy thought the dollar's worth was complete, a thimble or a cake of perfumed soap was added. The bargain seemed irresistible. To be sure the boy hadn't a dollar, had never had a dollar, but he knew that he would have bought had he had the dollar.

The lure is still powerful and when selling grows harder, the manufacturer and retailer unite to put over a "combination offer." The maker of cigarette lighters adds to each a cigarette holder and the two together sell better than either alone. Here are some combinations which a sales manager mentioned in a recent talk:

- Playing cards and perfumery.
- Compacts and women's garters.
- Thread and pin cushions.
- Knives, keyrings and chains.
- Pipes, ash trays and matchholders.

There are others. Recently dozens and hundreds of men have bought shaving cream because a razor went with it, or a razor because the shaving cream went with it. The ways of selling seem endless and varied, but perhaps they can be reduced to a few principles. Times may change but human nature doesn't.

Men, Machines and Bacilli



TRUST our chemical friends to produce a sensation whenever they get together! At the recent annual meeting of the American Chemical Society they announced the substitution of a bug, a bacillus to be more exact, that can take the place of a machine.

It's a sort of beer bug, coming from brewer's malt and it does its work on dried cocoanut meat. Cocoanut has a valuable oil but when dried the oil is hidden in hard-shelled cells of sugar and protein and expensive machines have been used to crush through the shell.

Now the bug does the work turning, first the sugar, then the protein, into liquids upon which the oil floats. The bacillus is a cheap worker. He draws no wages and doesn't have to be fed.

NATION'S BUSINESS for October, 1930

We have talked of technological unemployment, the displacement of men by machines, but here's poetic justice, the displacement of machines by bacilli.

Perhaps a time will come when bugs and bacilli will do most of our work and men and women will find themselves again in a garden of Eden.

Sons Born to Rule Business



AMONG the current consignments to obsolescence none is more reasoned from personal observation than the judgment passed on business "primogeniture" by Miss Frances Perkins, labor commissioner of the State of New York. At a meeting of the New York Building Congress she compared the management born to the rule of business and hired management. It is her view that "the law of primogeniture in American business has nearly passed out of existence" and "this is a good thing in my opinion." And she amplifies her conclusion with saying, "that in my observation, hired management is good management, less excitable, less prejudiced, less personal in its attitude toward workers. It regards a labor problem or a labor demand as only a problem to be solved, and not a personal insult to be resented."

Observation, as credible and as broad as Miss Perkins', directs consideration of the idea that the second generation of Morgans, Rockefellers, and Fords in management is the exception to prove her rule.

American Rulers —Nonsense!



JAMES W. GERARD, lawyer and once our ambassador to Germany has picked out a list of some sixty men whom he calls "the men who rule the United States." It is for the most part a list of America's business leaders, men whose names loom large at economic conferences and on commissions and committees. It is almost without exception a list of men of great wealth.

But to those if there be any who fear that the United States are "ruled" by an oligarchy of wealth we suggest this thought:

If such a list had been made a generation ago there would certainly have been on it a Vanderbilt or two, an Astor and a Gould. They were the names then that roused the fear of "plutocracy" as dominant in this country. None of these names is on Mr. Gerard's list.

When some other Gerard in 1960 makes another list of "the real rulers of America" how many of the names in this 1930 list will be left? Few, we'd venture to say. In that mythical 1960 list may be the name of that youngster who has just put your mail on your desk or of some man who is now tending a machine in a factory and struggling with a correspondence course.

We may not go "from shirt sleeves to shirt sleeves in three generations" but the right and the opportunity which this country of ours does grant to every man make it certain that we have in each generation a new group of leaders in business.

And, with all respect to Mr. Gerard, "the men (and the women) who rule the United States" are the 120 million who were counted the other day in the census.



Two groups are assembling railroads through holding corporations

The ABC of Rail Holding Companies

By OLIVER WESSON

ILLUSTRATIONS BY G. LOHR

APERPLEXED Interstate Commerce Commission last winter provided Congress with material for what may become a whole set of new national political issues by asking investigation and possible legislation as to current performance of holding companies in the railroad field. Committees in both House and Senate set enthusiastically about the task so proffered.

Though adjournment last July prevented final votes on the resulting proposals for railroad legislation, the Senate had adopted by a majority roll call a resolution sponsored by Senator Couzens of Michigan. The terms of this resolution substantially block rail-

road consolidation advance for a year.

The House of Representatives moved more slowly. However, at adjournment there was pending before it a measure providing federal regulation for rail-holding corporations, and a powerful contingent in its membership was pro-

claiming a determination to make the Commerce Commission withdraw a conditional permission that body had given the Great Northern and Northern Pacific railroads to unify their operations. None of these actions was final, but the procedure amply fore-

★ **BOTH Houses of Congress are giving much attention to the consolidation of railroads through holding companies. Their investigations may mean some major alteration in national policy toward transportation. Why some men say the development is dangerous and others view it as helpful is understandably described in this article**

shadows the lines along which, in coming months, an effort will be made to precipitate some major alteration in national policy toward transportation agencies.

In the economist's parlance a holding company is properly a corporation which engages in the sole business of owning stock in other corporations. The device is no novelty. The Commission's revival of interest in the function arose from its own experience in attempting to carry out the ten-year-old mandate of Congress as to national railroad consolidation.

On paper the Government now has a plan by which the 160-odd trunk line railroads of the country will be merged into a score or so of giant systems. But as they finished their draft of that scheme, Commission members came to realize that powerful railroad interests, amply armed with capital, were buying up railroad securities through holding corporations and pooling the properties bought on a basis conflicting at many points with the national plan.

The programs of the rail operators were seen to be vigorously pushing forward while the government plan could be at most a static affair incapable of advancing toward consummation by its own initiative.

Consolidation grows independently

THIS state of matters, Joseph B. Eastman, chairman of the Commission's legislative committee, said somewhat ruefully, in outlining it to congressional committees, has convinced many people that "there is danger of complete loss of public control over the process of railroad consolidation."

One House committee immediately set a staff of experts to compiling by chart and graph the outlines of the new forms that railroad ownership had taken. Debates on floor and in committee room aired all the circumstances, imaginary and real, that surround the subject. Chiefs of railroad labor organizations objected to any increase in railroad efficiency under merger ar-

rangements that would lessen employment. One accomplishment was quickly registered. Railroad spokesmen, publicly and privately, concede that for the present the movement toward amalgamation of American railroads in units of greater size has been brought to a full stop.

To some extent the preliminary facts laid before Congress about the present status of railroad ownership are the commonplace of security markets. Two great rail groups are seriously engaging in assembling ownership of railroads on the holding corporation plan. One of these is represented by the Pennsylvania system. The other is led by O. P. Van Sweringen of Cleveland and his brother, M. J. Van Sweringen, who, almost unnoted, have welded together a railroad empire the magnitude of which dwarfs by comparison the historic achievements of Harriman, Hill, Vanderbilt or Gould.

Six first-class American trunk lines are now absolutely in their domain—the Chesapeake & Ohio, Erie, Pere Marquette, Nickel Plate, Missouri Pacific and Chicago & Eastern Illinois. Two others, the Denver & Rio Grande Western and the Denver & Salt Lake, by reason of their affiliation with the wholly owned lines, are more or less grouped with the Van Sweringen systems. A ninth road, the Wheeling & Lake Erie, is held by a trustee in their interest.

Only the minority votes

INDIVIDUAL fortunes, even of the greatest size known to modern times, are insufficient to encompass actual ownership of so gigantic a collection of railroads. A salient point of brilliance in the Van Sweringen feat lies in the successful organization of what might be termed a financial pyramid which incloses the railroad properties they have come to dominate. The investing public has eagerly bought and now holds securities which represent perhaps 90 per cent of the ownership of the Van Sweringen group; but its corporate organizations are so arranged that the men at the top, though retaining personal ownership of securities representing perhaps less than 10 per cent of the immense total, nevertheless have effective voting control over every unit in the mass. Indeed, the distribution to the public of the vast quantities of Van Sweringen paper has been markedly aided by the assurance of this control, since it has guaranteed to the railroads involved what Wall Street admiringly dubs "Van Sweringen manage-



A railroad empire has been welded together which dwarfs the historic achievements of Harrison, Hill, or Vanderbilt

ment." Methods followed are simple enough in principle though exceedingly complicated in practice. A primary holding company is created to buy a railroad; it provides necessary funds by marketing its own stock and bonds, largely to the public, but sells voting stock constituting control over its own organization to a secondary corporation.

In turn, the secondary company, while blossoming out with public sale of non-voting bonds and preferred stock based on its assets and earning power, is likely to pass over voting stock control to a third enterprise in which public participation is limited or entirely omitted. Then, too, related companies deal back and forth in their own securities, while the Van Sweringen brothers are credited with personal ownerships of blocks of rail stocks of pivotal character.

A bewildering succession of company titles enters into the scheme of organization. Even the recitation of their names fills tedious congressional committee records. Suffice it to say that, however assets and liabilities are marshalled in the complex structure, the fine but completely adequate threads which define control over railroads generally converge and terminate in the semi-obscurity of the very apex, where is placed the non-public close corporation called the Vaness Company.

Regulation is avoided

FURTHER, it is obvious that in the issue and sale to the public of the masses of securities in their enterprises the Van Sweringen tactics have accomplished complete escape from the regulation and scrutiny which the Interstate Commerce Commission exercises over the issue of stocks and bonds of old-line railroad organizations.

Predecessors of the Van Sweringens in the historic play with the assembly of railroads were content with a 20 or 25 per cent ownership of voting stocks of the systems they manipulated. Not so the Cleveland practitioners. Their primary holding corporations typically acquire 50, 60 or even 70 per cent of the existent voting stock of a subject rail system. They may, in addition, absorb great blocks of the carrier's non-voting stocks and bonds.



Many persons fear complete loss of public control over railroad consolidations

"My brother and I felt that if anything was going to be done with a railroad, it had to be done by getting hold of enough of its stock to make sure of control," O. P. Van Sweringen once remarked.

The Pennsylvania's recent accumulations of stocks of other railroads has been made largely through an auxiliary holding company, the Pennroad Corporation, created for the purpose. A voting trust securely vests management of the subsidiary in Pennsylvania officers. Pennroad has bought outright the Detroit, Toledo and Ironton; it is buying into the New Haven and Boston & Maine. It has positive control of the Pittsburgh & West Virginia. It owns large blocks of Wabash, Lehigh Valley, Seaboard Air Line and Norfolk & Western stocks.

Other and lesser holding company operations can be briefly cited. The Delaware & Hudson Company, lately shaking off the character of an operating railroad, has become an important owner of railroad securities. So has the American Railway Express Corporation, also now a non-operating company. A holding company controls the Chicago Great Western. When Dr. W. M. W. Splawn, ex-president of the University of Texas, an authority on railroad organization who heads the in-

vestigating staff Congress named to chart the corporate status of modern rail ownership, reports his findings, more adequate information will be available. But that report is months away.

Congress divided

NONETHELESS, the preliminary assembly of material proved amply adequate to incite political division in Congress; the holding company operations obviously tend to centralize railroad ownership in units of unprecedented magnitude. But does ownership so consolidated succeed in bringing about consolidated management, cooperative action of separately operated railroad systems and similar attainments of thorough-going merger? Opinion diverges here.

Instantly and naturally one group is convinced that these operations represent a novel and fearsome monopolistic endeavor. Another group demands some showing of public damage, actual or potential, in advance of legislation.

How far holding-company ownership really welds separate rail systems into effective operating units of greater size appears to be a subject on which even railroad opinion differs. Federal regulation of interstate commerce is uniquely effective, and extends to every phase and detail of rail operation. No railroad can assign benefit of any of its own facilities to another carrier except on terms sanctioned by the Commerce Commission. That regulation presents many obstacles to full cooperation between rail companies even when their ownership is identical. Then, too, there is another factor enforcing isolation between group members, which the Van Sweringens have often encountered.

"This is a hard, uncharitable world and the officer of a railroad is never allowed to forget it," O. P. Van Sweringen said in the course of one of his rare discussions of problems with which he copes. "He can take no action as an executive of his railroad which cannot be justified as being immediately in the best interests of his particular company. Minority stockholders see to that; they resent any policy that puts the substance of the railroad which they partly own at the service of another carrier in which they have no interest."

As to the sincerity of Mr. Van Sweringen's utterance it can be said that his

(Continued on page 195)

SINCE LAST WE MET ★

AUGUST

- 9 • UNFILLED orders of United States Steel increased in July, a month which usually shows a decrease.

B. & O. gets Chicago & Alton. Needs Jersey-Central-Reading to complete its two billion-dollar consolidation.

EUROPE'S unemployed now six million, says British Labor paper. Germany worst off with 2,750,000 out of work.

FORD says auto industry will go on a ten-month year. About 11 months now he thinks.

- 10 • AMTORG says Russia placed orders in America for \$40,500,000 worth of agricultural machinery and tractors in June and July.

- 11 • CROP report of August 1 shows corn at 2,350,000,000 bushels. As against a five-year average this would be a loss of 350,000 bushels.

- 12 • SINCLAIR Consolidated in getting Prairie Oil, Prairie Pipe Line and Tidewater Associated will form a billion-dollar world-wide company.

COTTON off a dollar a bale to the lowest of the year.

- 13 • JUNE'S exports and imports were each about \$30,000,000 less than June 1929. South America shows greatest proportional loss.

- 14 • CHRYSLER made \$3,228,000 net in the second quarter compared with \$180,000 in the first quarter.

- 15 • HOOVER and governors of affected states adopt program of drought relief. (See page 54 this issue.)

BANK clearings \$8,200,000,000 for week ended August 14 as against \$12,600,000,000 for week ended August 13, 1929.

- 16 • BUREAU of Labor Statistics says wholesale prices fell in July to 84 from 86.8 in June. Average for 1926 is taken as 100.

COPPER at 10.75 cents, lowest in 20 years.

AUGUST

- 18 • GENERAL MOTORS sold to users 80,147 cars in July as against 147,079 in July, 1929. Production shows an upturn in August.

FEDERAL expenses for July, 1930 were \$259,000,000, a jump of \$13,000,000 over July, 1929. Receipts were \$55,000,000 less than last July.

- 19 • WILLIAM C. DURANT becomes president of Durant Motors and will build the American Mathis. It's a French car about the size of the Austin.

CARLOADINGS for week ended August 9 were 904,157, which was 14,178 under the previous week and 140,111 under the corresponding week of last year.

- 20 • FRENCH LINE announces a new ship of between 50,000 and 60,000 tons.

IRON AGE says steel buying is certain to pick up in September.

PAN AMERICAN AIRWAYS buys New York, Rio and Buenos Aires Lines. Makes it the world's biggest air line, flying 100,000 miles a week.

- 21 • HOOVER'S drought committee prepares a plan for local credit companies. Relief will be more local than national.

- 23 • HENRY P. Fletcher named head of Tariff Commission.

CENSUS Bureau puts unemployed in April at 2,500,000.

KROGER, second largest food chain, to manage food stores for Sears, Roebuck.

- 24 • COLLECTIONS of internal revenue for year ended June, 1930, were \$3,040,000,000, a hundred million more than preceding year.

- 25 • INQUIRY ordered into 27 tariff rates including shoes, cement, pig iron and some kinds of leather and lumber.

TWENTY Class 1 railroads report 30 per cent drop in net earnings for July as against July, 1929.

- 26 • UNITED STATES Steel operations for week jump from 62 to 66 per cent of ingot capacity.

A Business Record August 9 to September 9

AUGUST

- 27 • ROY A. YOUNG resigns as governor of the Federal Reserve Board.

CUBA will undertake to reach an international agreement to curb sugar production.

- 28 • PENNSYLVANIA increases its New England holdings by purchases of Maine Central and Bangor and Aroostook.

NATIONAL Association of Real Estate Boards reports that activity increased in July 3.1 per cent over June.

- 29 • DEPARTMENT of Commerce says business went up seven per cent in week to August 23 over preceding week. Bank debits outside New York the measure.

- 31 • DIVIDEND declarations in August were \$447,689,000 as against \$388,000,000 in August, 1929. Figures from the New York Times.

BRITISH bankers join in appeal to their country to adhere to free trade and better way out of depression than "empire protection."

DEPARTMENT of Commerce reports that there was building on July 1 in American yards 487,000 tons of shipping, highest figure for several years.

SEPTEMBER

- 2 • NEW stock tickers installed, capable of handling a 9,000,000 share day. Brokers hope that they may again have a high speed market for the high speed tickers.

- 3 • UNITED STATES Chamber of Commerce submits to the 1,600 business organizations which compose its membership a referendum as to the place of commodity exchange trading in the economic structure of the country.

- 4 • PHELPS DODGE interests plan to buy Nichols Copper Company.

- 5 • EUGENE MEYER succeeded Roy A. Young as governor of the Federal Reserve Board. Edmund Platt, present New York member, resigns in order to preserve the geographic balance.

CURTISS WRIGHT Company shows net loss for first six months of 1930 of \$5,350,000. Both manufacture of airplanes and

SEPTEMBER

operation of airports and air services showed losses.

ELISHA LEE, vice president of Pennsylvania, says railroads of the country are spending a billion in improvements to be ready when business mounts up.

- 6 • DEPARTMENT of Agriculture says world wheat crop of 1930 will be 2,337,000,000 bushels, a gain of 3 per cent over 1929.

- 7 • TREASURY offers \$325,000,000 of 12 month certificates at $2\frac{3}{8}$ per cent, lowest in many years.

CANADIAN Parliament meets in special session and is expected to revise the tariff upward. On the same day Lord Melchett tells the Bond Club that Great Britain is sure to turn to a tariff on manufactured goods.

AMERICAN Chemical Society hears of a new chemical called arclor which is useful for waterproofing, fireproofing, making artificial leather, ink and chewing gum among other things.

- 8 • STEEL ingot output for August increased over July. First gain in five months.

RUBBER in New York at 7.9 a pound as Dutch East Indies refuses to check production.

CHICAGO'S street cars and elevated lines to be consolidated in the Chicago Local Transportation Company with about \$240,000,000 of bonds and stock.

- 9 • BUREAU of Standards reports production of crystalline rubber. Standard Oil scientists tell American Chemical Society of methods of getting $100\frac{1}{2}$ gallons of gasoline out of 100 gallons of petroleum.

DEPARTMENT of Commerce announces that exports of United States tractors, engines and parts totalled \$50,000,000 in the first half of 1930 as against 39,000,000 in the corresponding period in 1929. Russia took more than half.

CAR LOADINGS 984,504 for week ended August 30, an upturn of 43,955 cars from previous week, but still 177,596 below 1929.

NET income of class I railroads for first seven months was \$459,000,000. In 1929 corresponding figures were \$686,000,000.

Cheap Silver Means

By JOHN HAYS HAMMOND

World Famous Mining Engineer



PROUD SILVER which dominated the marts of the world for 2,500 years until upstart gold unseated her a generation ago, recently drank the dregs of humiliation when quotations of her value sank to 35 cents an ounce.

Never since the Greeks at Laurium, 600 years before Christ, began to produce such supplies of it as to displace the copper money of those days had silver even approached such a price. For more than 20 centuries before Columbus, the price of silver had been about one-tenth that of gold, which would be equivalent to a modern two dollars an ounce.

Two hundred years later it was worth one-fourteenth the price of gold or \$1.30 an ounce. In 1800 this price still held. It was above a dollar in 1880. Then came the demonetization of silver and the enthronement of gold. Silver slumped to 60 cents in 1910, returned to \$1.00 in 1920, under the influence of war, and again declined to 60 cents afterward. But 35 cents!

To one who was born into an age when silver still was king, whose profession has been that of mining engineering, whose lot it has been to pioneer South Africa whose outpourings of gold have had more than all else to do with the

MR. HAMMOND, who has spent much of his life developing gold and silver mining properties in many parts of the world, draws here on his wide knowledge of peoples and conditions to suggest one of the causes of world depression and a cure. He calls attention to an X-force which, he says, is not only reducing foreign markets but is directly hampering one American industry and indirectly many others



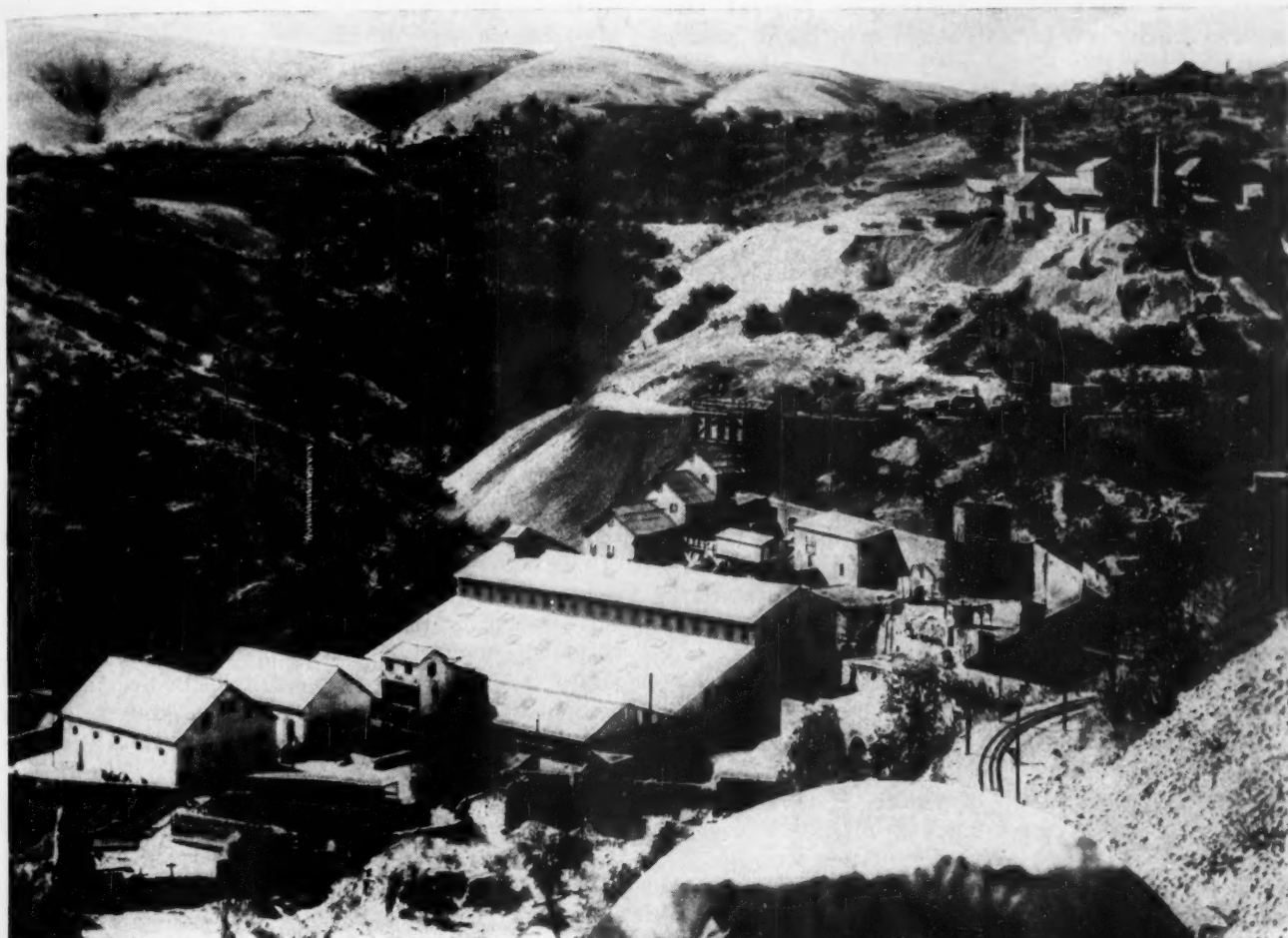
PUBLISHERS' PHOTO SERVICE

India's efforts to get on a gold standard do not suit the people's habits

Silver hoards represent the only means of saving used in the Orient

EWING: GALLOWAY, N. Y.

Reduced World Buying Power



EWING GALLOWAY, N. Y.

The San Rafael mine at Pachuca, Mexico, is one of the richest in the world

debasement of silver, the plight of that poor metal appears most tragic.

It may be well to pause a moment in consideration. The signal of thumbs down on this grizzled gladiator of a thousand monetary arenas may bring economic consequences that are important to Prague, Paris, and Paducah, Ky.

Two major immediate effects at opposite sides of the globe are at once apparent. The first is in the Orient where silver is still the basis of monetary systems and the second is in America where most of the silver is produced.

From the standpoint of silver consumption the Chinese and East Indians have long been the most important of peoples. The currency of both has been on a silver basis although India, after a study made in 1926, and under pressure from the British Government, has been going



PUBLISHERS' PHOTO SERVICE

The discovery of important new gold fields is unlikely although the hunt for them is still going on

through the processes of a change to the gold basis.

India has about one-sixth of the world's population. Since there are no savings banks each individual must find his own way to take care of accumulations of wealth.

In many lands such wealth is habitually put into land but here the population is so great in proportion to the land that none is ordinarily available. Such a people is likely to put its savings into articles of value and hide them away. It accumulates jewelry and precious stones or it hoards precious metal.

India's wealth depends on silver

BECAUSE of this habit India has been known for centuries as the sink hole of silver and gold. Its opportunity to acquire gold has been slight but silver has been ever present and has gone steadily into the hoards of modest individuals, of merchants who acquire wealth, of political potentates. This penchant for hoarding constantly has drained silver from circulation but the silver has as constantly been replaced by importations from the West.

Other peoples may not approve of oriental methods of hoarding but those methods must be accepted as existing facts. It will take a long time to change them. If these peoples' purchasing power is to be maintained, the value of this silver which is the basis of their wealth must be held up. World prosperity depends on expanding markets and it seems obviously unsafe to wreck that currency through which the most numerous groups of the world's population tie into commodity consumption.

Steadily through the centuries streams of silver have poured into the Far East just as they continue to flow today.

In 1924, for example, the world produced 260 million ounces of silver. India absorbed 108 million ounces and China 42 millions, a total of 60 per cent. In 1925, the world produced 250 million ounces; India absorbed 106 million and China 60 million, or, between them, 66 per cent. In 1926, the percentage was about the same though China then took more than India. In 1927, it was 67 per cent. In 1928 and 1929, with even a larger silver production, it was 70 per cent with China still holding first place.

Undoubtedly the major part of the world's silver has gone into the hoards of the Orient. There is no basis upon which to estimate the amount of it that is still there or how much of it has been lost by hoarders who die without revealing their hiding places. Since Columbus, 14 billion ounces of silver have been produced. The greater part of it today is doubtless in the possession of these Orientals. Authorities estimate that there are today four billion ounces of silver in India. The Chinese and other Orientals doubtless have three billion more.

This silver represents wealth, potential purchasing power, held in the Orient. If it is worth 60 cents an ounce that purchasing power amounts to \$4,200,000,000, which is almost equal to the value of half the monetary gold in the world's treasure vaults. If this silver is worth 35 cents an ounce its value is \$2,450,000,000 and the loss in the purchasing power of these people is \$1,750,000,000, twice the value of the gold in the possession of the British Government. This depreciation has come at a time of world depression and obviously could not but accentuate it.

It is odd that silver production should come so near being an American monopoly. Just as South Africa produces the lion's share of the world's gold, so North America yields most of its silver. Mexico yields at present some 40 per cent of the world's output. The United States produces an addi-

tional 25 per cent. Canada occupies third place with 10 per cent. South America accounts for an additional 10 per cent which leaves but 15 per cent to be divided among the eastern hemisphere's four continents. By far the largest silver production of these countries is controlled by American mining investors.

The Americas, in 1927, produced 180 million ounces of silver. The direct difference to America in selling that silver at 60 cents an ounce and 35 cents would be 46 million dollars. Indirectly there might be a greater benefit. Much of this American silver is a by-product of other metal mining. Its production is incidental to lead and copper mining. It acts as a sort of bonus in the operation of such mines. Often it would not be profitable to work a gold, copper, zinc or lead mine but for this incidental silver.

The difference between 60 cents and 35 cents in the price of silver might, in many cases, be the factor that would mean the closing of a mine that produced one of these important metals. Many mines are on the border line between profit and loss. A fair price for silver might make production possible.

Silver production in America has been so full of picturesque accomplishment that Westerners should feel the urge to keep it alive.

Yet the pride of production is not the only basis for a sentimental feeling that America should have toward silver. It should be remembered that the American dollar is the child of that out-pouring of Spanish coin which followed the discovery of America and was responsible for the only expansion of activity that the centuries have known that is comparable to what has been happening during this generation of gold. The major Spanish coins of that time, coins which long dominated the marts of the world, were the pieces of eight, of which so much is heard in pirate stories of earlier days.

England, not having shared with Spain in the silver of the Western world, had no coinage for her colonies, and they came to use pieces of eight. When they became independent they adopted this piece of eight and called it a dollar.

Our dollar was based on silver

THE very name, "dollar," is likewise due to the influence of silver. Back in the Dark Ages which, by the way, were dark largely because there was no medium of exchange that would permit development, a landholder in Bohemia found a silver mine. He realized that the need of the times was a circulating medium so he made his silver into coin. The valley where he lived was known as St. Joachim's Dale. After it he named his coin, somewhat awkwardly, a Joachimsthaler. Passing on to Germany this name was shortened to thaler, which in the low countries became a daler and, crossing to England, a dollar. England called a piece of eight a dollar and so we got both the coin and the term.

European nations, not content with having demonetized silver, recently have heaped other indignities on it. France and England have each debased the silver in their subsidiary coin—making an alloy with a cheaper and harder metal. Each has thus thrust 10 million ounces of silver a year on the market. India, finding that her silver was depreciating, last year exported 35 million ounces of it which went onto a depressed market. Despite these facts production held up. When the price goes down silver is unable to mark time in production until it revives. Since it is a by-product of copper, lead and zinc, it must keep on coming forth as long as these metals are produced.

As though to make the conspiracy for its undoing com-

plete, silver has sought in vain for a great new industry that would consume quantities of it. Copper has been glorified by the development of the electrical industry which consumes stupendous quantities of it. The automobile was a huge stimulant to steel.

To be sure, silver is vastly important in the production of motion picture film and ten million ounces of silver every year go into picture making. This helps, but England put that much back into the pool last year by changing the nature of her subsidiary coin.

The friends of silver, if she has any left, seem to be willing to take this drubbing lying down. To me there is another side of the picture. The plight of silver may not be hopeless. If even its modest value of 60 cents an ounce can be reestablished a contribution to world prosperity will have been made. The hoards of the East will again come to the market place with old-time strength. A mining industry in the West will be rejuvenated. Allied mining will have been stimulated. Silver will remain as an agent that contributes to the well-being of mankind.

I am not among those who feel sure that gold is adequate to provide a basis for the circulating media of all the world. But for the development of the South African Rand from which now comes nearly half of all the gold, it would have been impossible for the vaults of even the western nations to have been adequately filled. It is beyond question that the production of five billion dollars' worth of gold from this one field has been the energizing agent that has made life in this generation what it is.

Those five billions constitute half the monetary gold of the world today. What would have happened to world currency systems after the World War if that out-pouring of gold had not come? Could nations have gone on a gold basis? Could they have experienced the expansion that preceded the war, could the war have been fought as it was, but for this gold?

There have been no gold discoveries comparable to those in South Africa in the past half century although the effort to that end has been a hundredfold what it had ever been before. For the past two years I have been conducting an independent investigation largely through the mining engineers who worked with me in Africa and have scattered all over the world, in an attempt to estimate the future possibilities of gold production. The information I have gained warrants no expectation that other fields comparable to those of South Africa will be discovered. In my opinion the future will face a steadily decreasing gold output that, with the demands of economic expansion, may well become a pinch in a decade or two.

A secondary metal is needed

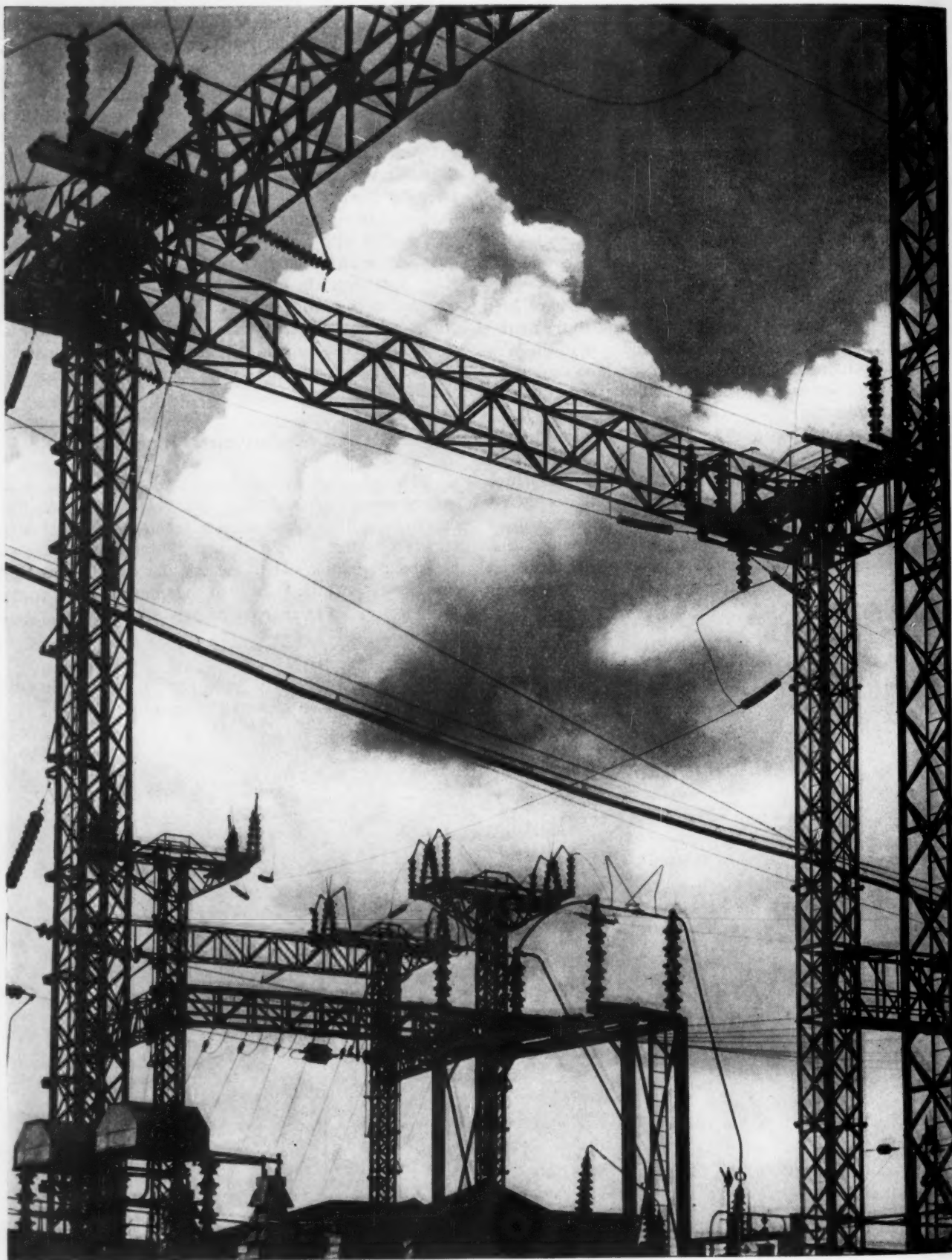
IF THIS shortage should develop, the existence of a secondary monetary metal might prove of importance. Even though the gold supply remains adequate, that metal has certain defects that unfit it in many vital areas as the sole basis of circulation. The Orientals, for example, require a currency of intrinsic value that they may adapt it to their

(Continued on page 208)



EWING GALLOWAY, N. Y.

A zinc mine at Gilman, Colo. Silver is a by-product of zinc, copper, gold and lead mines. It is frequently the margin that makes their operation profitable



A Fortress of the Singing Wires—a photograph by William M. Rittase

HERE are mobilized the mighty forces of electricity, secure against the darting bolts of the elements, to be dispatched upon the manifold missions mapped by the modern generals of commerce and industry

S
regu
elect
"all
radi
gend
com
B
Sen
For
Cou
has
bills
bill,
favo
regu
Sen
tion
T
"po
Hea
ter
app
slig
its
Rep
nun
F
pre

Why Add to the Federal Power?

An inquiring reporter asks some questions
of a Senator from Michigan



ROBERT B. SMITH, Washington correspondent of the Philadelphia Public Ledger, who will be remembered for his interview with Alexander Legge, in the April issue, here makes some pertinent inquiries of Senator Couzens



HARRIS & EWING

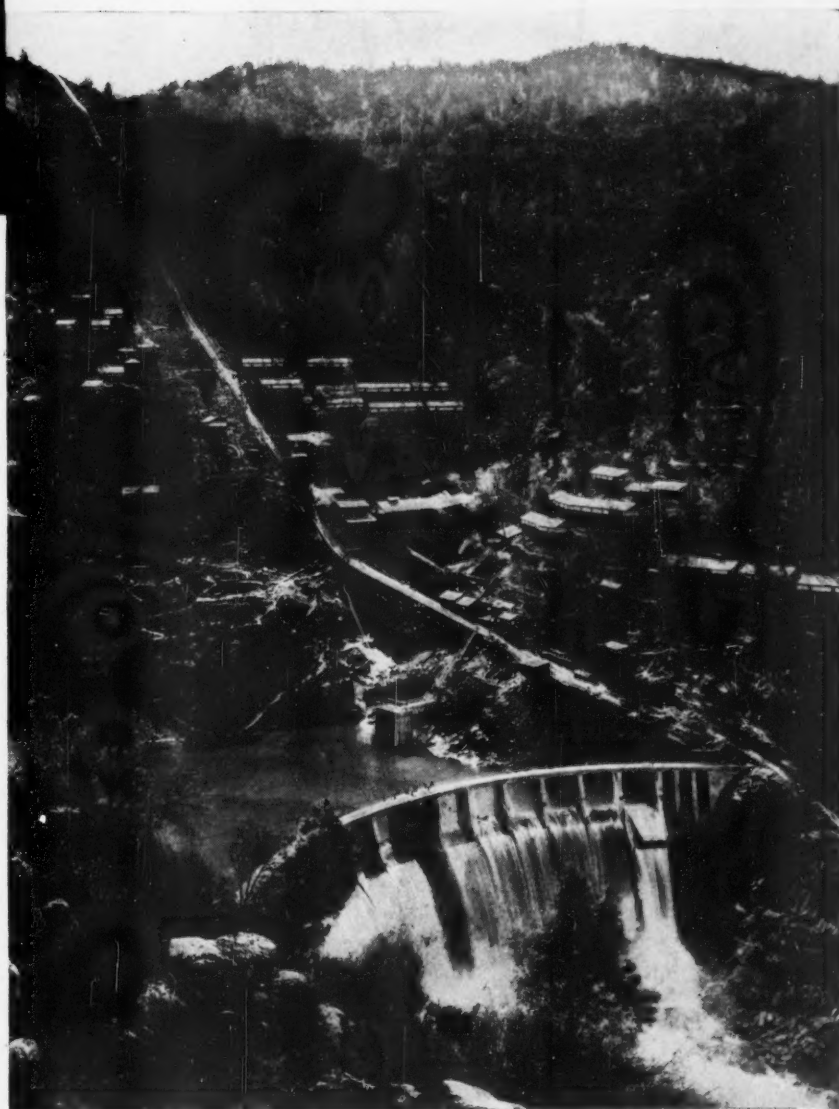
Senator James Couzens

SUPPORTED by a powerful group in Congress, Senator James Couzens, of Michigan, former partner of Henry Ford, is sponsoring two bills, one to regulate the interstate transmission of electric power and the other to regulate "all telegraph, telephone, cable and radio companies transmitting intelligence for hire" in interstate or foreign commerce.

Both measures are pending before the Senate Committee on Interstate and Foreign Commerce, of which Senator Couzens is chairman. The Committee has held hearings on the second of these bills, known as the "communications bill," and indications are that it will be favorably reported to the Senate at the regular session beginning in December. Senator Couzens hopes for favorable action by the Senate before adjournment.

The other measure, known as the "power bill," has not progressed so far. Hearings probably will be held this winter but the opportunity for action at the approaching short session is considered slight. It will be pushed, however, and its sponsors have the backing of the Republican insurgent faction and a large number of Democrats.

Regulation of communications at present is divided between the Inter-



COURTESY SAN JOAQUIN LIGHT & POWER CORP.

Under the Couzens power bill the Government would regulate such projects as this, the Kirckhoff Dam Development on the San Joaquin River, if their power lines crossed state borders

state Commerce Commission and the Radio Commission. The communications bill would create one commission to take over the authority vested in these two agencies. The Radio Commission would be abolished.

The power bill would confer entirely new powers on the Federal Government, which has no present authority to regulate power transmitted across state lines.

The interstate transmission of power is growing rapidly. In 1925 it amounted to about four per cent of all power produced; today it amounts to about 12 per cent. It varies widely. Some states produce virtually all the power they use. In 1928, Missouri imported 51.6 per cent of its consumption; Arkansas, 64.1 per

cent; Utah, 64.9 per cent and Mississippi 73.6 per cent. Fourteen states imported more than 20 per cent of their consumption. Vermont exported 71.9 per cent of the power it generated; Idaho, 67.5 per cent, and Maryland 61.8 per cent. At the same time Maryland imported 41.8 per cent of its consumption.

Invasion of states' rights

BOTH measures are subject to the criticism that they invade states' rights and violate the doctrine of "less government in business." Opponents of the Couzens bills cite the growth of the Interstate Commerce Commission from its humble beginning in 1887 to its pres-

ent dominant position in both interstate and intrastate transportation as an example of what may happen to state powers if federal commissions on power transmission and communications are established.

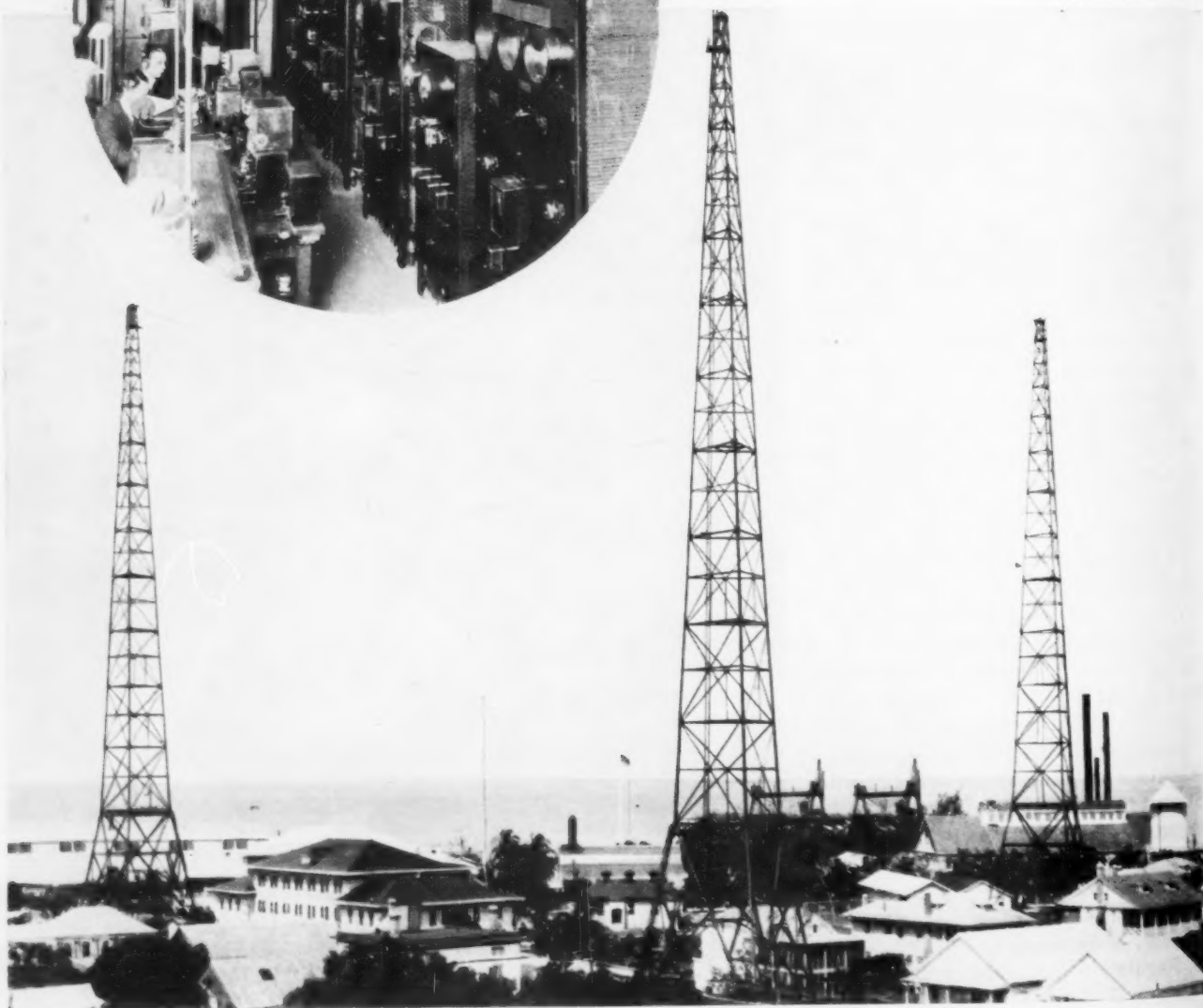
Fearful of the threatened further encroachment of the Federal Government, the National Association of Railroad and Utilities Commissioners, representing the public-service commissions of nearly all the states, recently declared itself unalterably opposed "to any enlargement of the federal authority by the creation of new agencies or the enlargement of the authority of present agencies in a way to interfere with the regulatory authority of the state commissions in a field where they are now adequately functioning."

The power companies themselves do not look with favor on legislation which



The Couzens communication bill would create a commission for regulation of wire or wireless communication. The present Radio Commission would be abolished

EWING GALLOWAY, NEW YORK



they fear may prove the opening wedge for federal domination of their business.

Thus the lines are being drawn for a hard-fought legislative contest. Believing that the issue is one on which the business mind of the country ought to be as fully informed as possible, NATION'S BUSINESS asked Robert B. Smith, a Washington newspaper correspondent, to interrogate Senator Couzens about the principal features of his bills. Mr. Smith has done so with the results here set down:

QUESTION BY MR. SMITH: Is it your idea to consolidate your bills and create one commission to take over the problem of federal regulation of interstate and foreign communications and power transmission?

Communications bill

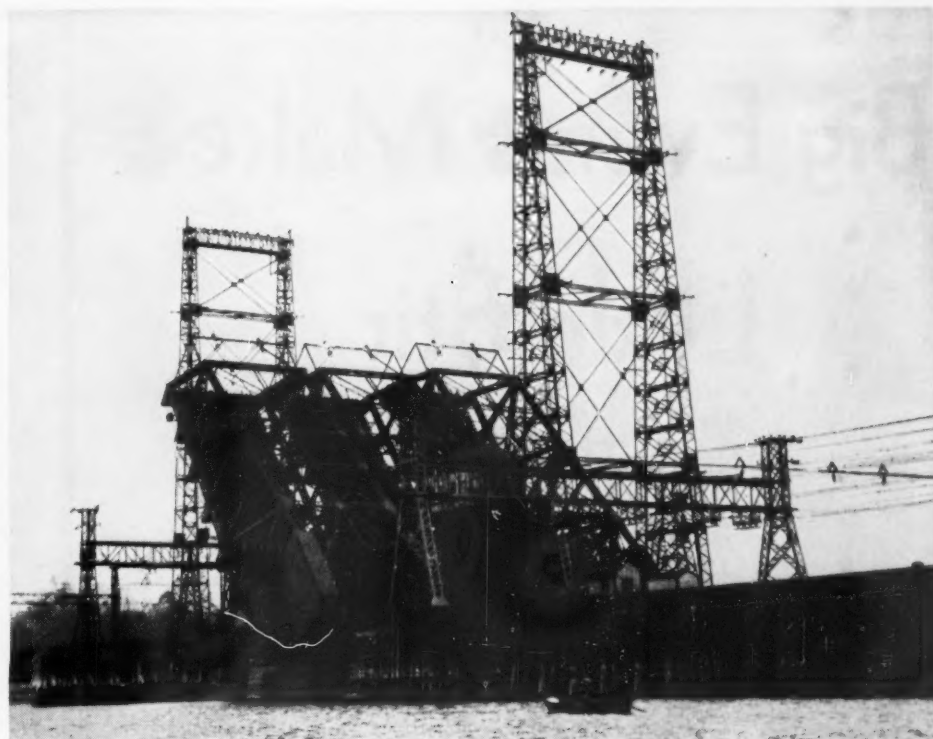
ANSWER BY SENATOR COUZENS: When the original communications bill was conceived, it was suggested that it would be advisable to create a commission on communications and power. However, as testimony was developed with reference to the communications bill it was agreed that it would be better not to link the administration of communications and power. Hence, we abandoned the original plan and we have now adopted the plan of providing for separate administration of communications and power.

In the Congress just ended, we adopted legislation to reorganize the Federal Power Commission, and the reorganization is now going forward.

In the next Congress we hope to adopt legislation which will substitute a Commission on Communications for the existing Radio Commission, but which will also give to the Commission on Communications that authority to regulate wire communications which is now vested in the Interstate Commerce Commission.

MR. SMITH: Isn't this another striking illustration of the growing tendency toward centralization of power in Washington, and of government intrusion into business?

SENATOR COUZENS: The only additional business which would be regulated by this proposed legislation is the interstate transmission of power. We now have a Radio Commission which regulates the transmission of energy and communication by radio. The Interstate



EWING GALLOWAY, NEW YORK

Transmission of power over long distances has developed amazingly during the last few years. These steel towers carry transmission lines over the Hutchinson River drawbridge, in New York State

Commerce Commission has authority to regulate communications by wire. It was thought that the regulation of communications, whether by wire or wireless, was better placed under the jurisdiction of one commission. There is much relationship between communications by radio and by wire.

It, therefore, seems more logical to have them under the jurisdiction of one commission. The authority of the Interstate Commerce Commission to regulate interstate business in wire communications was long ago granted by Congress, and nothing has happened to indicate that Congress was in error in enacting such a statute.

The states through their commissions now regulate, and have complete authority to regulate, intrastate movements of power. There is, however, no regulation of the interstate movement of power, yet this movement in some sections is very large.

Interstate regulation is federal

THERE is no power to regulate interstate commerce except through the Federal Government; therefore, no state regulatory body could regulate interstate communications either by wire or radio, or regulate interstate power. The Federal Government has exclusive power to regulate interstate business and, when

it has done so, it has not been considered as an intrusion in business.

The people have adopted the theory of either government ownership of monopolies, or government regulation. The preponderance of opinion seems to be in favor of government regulation.

MR. SMITH: What is the purpose or justification of these bills? Is there any unusual condition or development that prompts you to put them forward at this time?

SENATOR COUZENS: The purpose and justification is that public policy has adopted the theory of regulation of utilities rather than public ownership and operation; these bills merely carry out this policy.

I repeat that the bills are largely to reorganize existing regulatory facilities. We are creating no additional commissions. We propose to vest the authority to regulate transmission of power in interstate commerce in the Federal Power Commission.

Transmission of power over long distances was practically unknown a few years ago. Now the interstate movement is large, and is increasing every year. I think it is generally agreed that the time has come when it is absolutely necessary to begin the regulation of such interstate transmission of power.

MR. SMITH: What would become of
(Continued on page 206)

Big Events Make Little Stir

By C. E. Kenneth Mees

Director of Research, the Eastman Kodak Company

ILLUSTRATIONS BY LYLE JUSTIS

THERE are few qualities which are more likely to insure success in business than the ability to judge accurately the relative importance of changes occurring in the community. A business man with foresight can insure the success of his business, since he can adapt it to the changing world, while lack of foresight may destroy a business which is admirably conducted in all other respects.

Especially at present, this is a changing world. New things are invented every day. The practices which were common yesterday are already obsolete; manufacturing methods, once successful, are being relegated to the scrap heap. If a business is to prosper, it must continually adapt itself to changing conditions; and if it is to flourish, its leaders must foresee what conditions are likely to develop. While the history of business affords many examples of the value of foresight, it is nevertheless true that many events which have eventually proved important have attracted little attention and that many events which seemed important have proved later that they were of merely passing interest.

Any discussion of this subject involves, of course, a definition of the word "important." It is not much use discussing any proposition involving terms unless those terms are first defined.

In considering the word "important,"

we must first ask, "Important to whom?" We can take two viewpoints. One, the shortsighted viewpoint of the moment, which, however, it may easily be claimed, is the real viewpoint; and the other, the longsighted one of the future.

The things that appear to matter today are not always those which appear to matter in the future, and the relative importance of the future and the pres-

★

YOUR success as a business man may depend on your ability to recognize important happenings. As a test make a list of what you consider the most important problems before you today. Read Dr. Mees' article. Then go over your list again. Perhaps you will want to make changes

ent depends on the urgency of the subjects. To a drowning man, the future supply of fuel for the world is relatively unimportant.

But the importance of the questions that it is proposed to discuss here lies in their effect on the future health, happiness, and progress of the community and



Although Alexander's

of the race. Perhaps we can define "important," therefore, as meaning, "Having a large effect on the future."

Now, we can only learn of the future by considering the past. We can find pairs of problems which people have met in the past. We can study the views that people held as to the relative importance of these problems at the time they met them, and then find the verdict of history as to their relative importance for the future of the human race.

Comparing problems of the past

THIS is easy to do. It is only necessary to take a date—preferably one sufficiently remote for history to have passed a clear verdict upon its problems—to look up in the encyclopedia the various problems which were perplexing people, study which of them were thought the most important, and then find the verdict of



path led to glory it left no deep impress. Today his effect has largely faded

history as to the correctness of the judgment passed.

It is proposed here merely to suggest a series of examples which can easily be amplified. The first example goes back to times before history and must, therefore, be imaginary.

At that time, there was perhaps a people living in Asia Minor or in the Balkans or in Cyprus who did all their work with flint implements—rather well-made flint implements, because they had been making them for thousands of years. They probably dressed in skins sewed together with fibers, and we have some of the piercing instruments that they used to make the holes and some of the scrapers they used to clean the inside of the skins.

We may imagine that at a certain time these people were greatly agitated over a very practical question. Another tribe, living near them, was poaching on

their cattle feeding grounds. The tribe had occupied these grounds ever since the oldest men could remember and it seemed probable that it would be necessary to resolve the question by war.

A "trivial" discovery

THERE was fierce agitation among all the people as to whether they should fight or should suffer the encroachment, hoping that it would go no further.

Now, just about that time, a young man in the tribe had built his wood fire with blocks of stone which had bluish streaks in them. Some of the bluish material had crumbled out and got mixed with the wood of the fire. When he cleared the ashes away, he found a lump of hard, reddish material which we should recognize as metallic copper. He repeated the experiment, mixing more of this stone with the wood, and got

more copper. Banging it with large flints, he was able to flatten it out into a thinnish block of metal which he could fasten to the end of a spear. He was so occupied with this that he was little interested in the excitement of the tribe, and the elders eventually rebuked him sternly for neglecting his duty.

It is certain that if the leaders of that tribe had been asked which was more important—the invasion of their hunting ground or the discovery of the first of the metals—they would have dismissed the discovery of the metal as insignificant and emphasized the enormous importance of preserving their status against their enemies. But history tells us that the discovery of copper was the first great step in the civilization of man and, in fact, produced the first historic civilizations, while the usurpation of a hunting ground was so common that the fable might be true of any tribe

over thousands of years. After copper had been discovered and its applications began to be known, a great civilization arose on the banks of the Nile.

The most important person of that world was the king, the leader of the army, chief priest, intercessor for the people with the gods, owner and master of the land. Of one of these kings, we know a little, but he is overshadowed in history by one of his subjects who seems to have been a successor of that savage who discovered copper.

We know little about the first of the scientists and the philosophers except that he was a notable person even then. His name was Imhotep, "he who brings peace." We don't know why he was called that.

He was probably educated as a priest, and he seems to have been a man of great personal capacity, because he was made next to the king ruler of Egypt in all respects.

He became vizier, which meant that he had charge of the executive government, he was chief priest, chief of the scribes, treasurer of the kingdom. But he was also the first of the professors and he built in Memphis a school where,

we are told, architecture, science, and medicine were studied.

Imhotep was probably skilled in embalming, and accustomed to dissection; he was consequently an anatomist. We know he was an astronomer and he certainly was an architect. He found Egypt a country of mud huts, and he left it a country of stone palaces. The architects and engineers who came from his school designed and built the pyramids, and as a medical man he was so great that at his death he was elected a demigod.

History showed his true value

A THOUSAND years later he was made a full deity and eventually became identified with the Greek god of medicine, so that to this day the doctors revere the memory of Imhotep under his Greek name of Aesculapius.

In 3000 B. C. in Memphis, it would, I think, have been blasphemy to suggest to an Egyptian that there could be any comparison between the glory of the King and the position of his vizier, who was only a servant of the living god, as the king of Egypt was called. But most kings produce little effect on history

while an Imhotep is born only once in many centuries.

In 335 B. C., two notable men left Pella, the principal city of Macedonia—a student and his teacher—but they did not go together. Alexander, King of Macedonia and son of Philip, left to invade Asia, a journey which was to establish him as master of the known world. His teacher, Aristotle, left for Athens to establish his great school of philosophy. Alexander's path led to glory; Aristotle's to wisdom.

If you had asked any man of that ancient world which of the two was the more important, he would have laughed at the idea of any comparison. Except among a few philosophers, the work of Alexander for hundreds of years seemed to leave on the world an impress far deeper than that of Aristotle. Yet, looking back today on the history of human effort, the effect of Alexander's work has largely faded, while that of Aristotle is still brightening and widening, fertilizing the minds of men, and leading forward to the day when man will indeed be master of his own fate.

In 58 A. D., the people of Rome
(Continued on page 119)



In 500 A. D., Clovis, the Frank, entered Gaul and founded the Frankish Empire but he had less effect on the future of Europe than did Benedict who was almost unknown at the time

★ **WE HAVE** talked a great deal about the external forces that threaten every business. Cason J. Callaway encountered these forces but he found them, not a threat but an opportunity. When they didn't exist, he made some



Cason J. Callaway

He Took an Idea to Market

By WILLIAM A. McGARRY

WHEN Cason J. Callaway went home from college a dozen years ago to one of the richest industrial properties in the South, his father gave him a dollar and told him to go into business for himself and see what he could learn. Many years earlier Fuller E. Callaway, the father, had made his own start on less, selling spools of thread to the neighbors when he was only ten years old.

On that beginning the elder Callaway had passed through store keeping and cotton planting to become a manufacturer. He had built at LaGrange a group of standard cotton mills and, for his employees, schools, churches, community houses, roads and dwellings—with gardens and a com-

munity pasture for their cows. There and elsewhere he had nine mills, paying the highest wage rates in the industry and operating on shorter hour schedules than most. He was fond of saying that he ran them to pay the expenses of making American citizens.

Made a hundred markets

BEFORE he died in 1928, Fuller Callaway saw the string of mills extended to 14, while the number of different markets in which Callaway products were sold had been run up from half a dozen to a hundred. His son had taken him literally and had gone into business—the cotton business—equipped with a dollar and an idea.

The idea was to buy from his father's mills the short staple cotton left

after the manufacture of tire fabrics and other strong cotton goods. It had been selling as waste. Cason Callaway planned to grade this and thereby to command higher prices, and also eventually to manufacture products not requiring a long fiber. A banker loaned him \$100,000 to start operations in an old warehouse, and in three years the Valley Waste Mill was worth half a million dollars and doing nicely.

If there is any other industrial organization in the United States quite like the enterprise that has been built since then out of all the Callaway properties I have never heard of it. Many are larger—including some in the cotton industry—and many have spent larger sums on community and welfare work. But I know of none in which manufacturing has been used to solve social problems not of its own creation.

It is not only in production, moreover, that the Callaway organization is

unusual. It has actually put into practice the new theory of competition which, as Mr. Callaway puts it, "is that there are more than enough customers for all competitors so long as the products of a given industry continue to meet increasing and changing human needs." Thereby it has carved out tremendous new markets, and it has discovered that its expansion would be even more rapid if the rest of the industry competed on the same basis.

The one criticism constantly thrown at the company with respect to its labor and social program supplies the key to its point of view.

"You are educating your people out of the mills," Mr. Callaway is told. "Why not let well enough alone when you have a labor force that is happy and contented?"

The secret of contentment

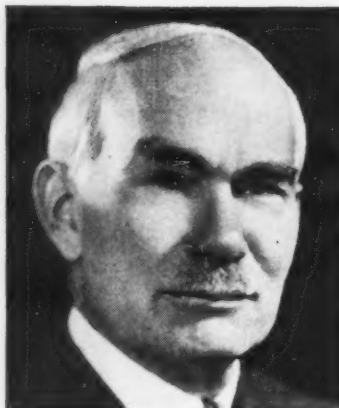
"CONTENTMENT," he answers, "is in the conviction that one is making progress. It does not pay to let people stay ignorant. We are first of all for education and intelligence. We are convinced that economic expansion depends on rising intellectual standards—which is only another way of saying that the mass moves forward with the progress of the individual. If the opposite were true all the factories would be in the most backward countries.

"As with human beings, so with businesses. We have learned that a business cannot go forward beyond a certain point in the United States more rapidly than the expansion of the entire industry of which it is a part. If the industry as a whole or a majority of its competing units is unprogressive and not tuned to the times, the day will come when the most capably managed concern will find its progress halted by the inertia of the mass. New markets may be beckoning still, but the rate of their development will be slower and the expense of development will increase."

Employees of the Callaway mills—virtually all 6,000 of them—come from that romantic but isolated stock of pioneer Americans, the mountaineers of southern states. In their own hills they are proud of their lineage, their freedom and their sharpshooting. Some unsympathetic educators and sociologists have called them ignorant, poor and hard to handle.

But when the textile South was in the worst throes of its labor troubles some months ago, 20,000 persons, employees of the Callaway Cotton Mills

BUSINESS FOLK IN



CAUTIONS

Advertising is a growing menace to radio broadcasting, according to Dr. Lee De Forest, the inventor



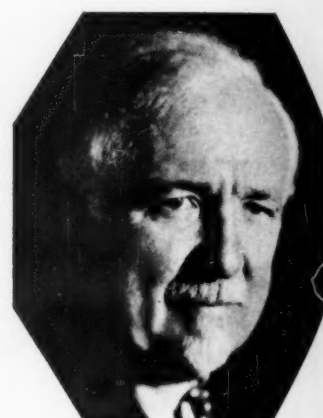
AD MERGER

A. L. Billingsley, of Fuller and Smith, advertising, heads merger with Ross agency, of New York



EDITRESS

Mrs. Eleanor Patterson, granddaughter of The Chicago Tribune founder, edits Washington Herald



TRANSFERS

Resigning from Doubleday, Doran & Co., George H. Doran affiliates with the Hearst organization



CONSERVATIVE

Canada's new prime minister is R. B. Bennett, who is a business leader as well as a politician



SKIPPER

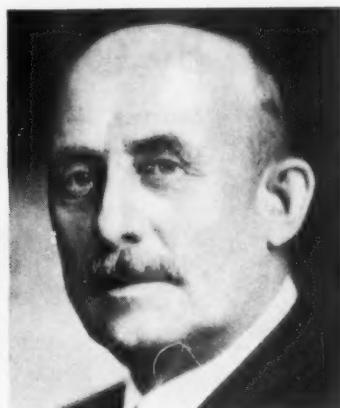
Kermit Roosevelt heads steamship firm which recently acquired the International Mercantile Marine

★ THE MONTH'S NEWS



COMMISSIONER

Chief tax gatherer is David Burnet, successor of Robert Lucas as internal revenue commissioner



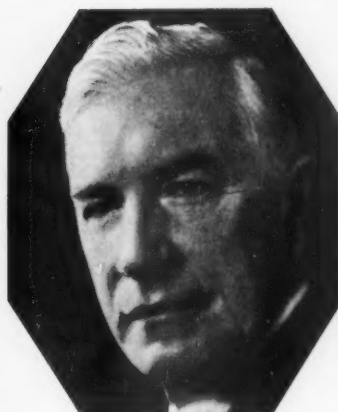
ROMANTIC

George S. Henry, Ontario minister of highways, orders traditional names for modern roads



ANTIFRAUD

Steps to curb false bankruptcy losses are urged by U. S. Solicitor General Thomas D. Thacher



CHAIRMAN

Henry P. Fletcher, Pennsylvanian and veteran diplomat, is the new Tariff Commission chairman



INSURANCE

Dr. James W. Glover, Michigan insurance professor, heads Teachers Insurance and Annuity Assn.



INDEPENDENT

John L. Walker's Palmer Match Company, Akron, holds first rank among independent match firms

and their families, took a day off to dedicate a clock tower and airplane beacon to the memory of Fuller Callaway. It was planned and paid for by the men and women of the mills, American citizens all. They handle themselves.

The Callaways, father and son, have met these people on a plane of equality, and have never offered to give them anything for nothing. Employees bear part of the cost of every community activity and when they do not want it, it ceases to function. The real genius of the Callaway achievement, however, lies in the extent to which it has reproduced the best features of the mountaineer's home life in a modern industrial environment. Here, in effect, the factory and the farm have met.

A fat young shoat was rooting around in the park at the base of the Memorial Tower the day I was taken to see it. It was owned, the pig, by a workman whose home was nearby. On the way to the park we had passed the community pasture where the people graze their cows. Nearly all the married men have live stock. Another cow was grazing on a green slope between two of the mill buildings, tethered so that she could not wander over a busy railway siding flanking one of the mills.

A home-like settlement

THE COTTAGES—I was driven past miles of them—average a quarter acre of land each, for gardens. If any two dwellings are alike they are so scattered that the usual drab uniformity of an industrial settlement is nowhere visible. There are two modern schools on mill property, one with an enrollment of 650 and another with 400. The corporation built them and pays a number of extra bills including free dental service by graduates. And they meet all state and local educational requirements, exceed them, in fact.

Anybody can start a church in Southwest La Grange if he can get a congregation. Callaway Mills will provide the lot and up to 50 per cent of the building cost. If the church wants further help it must make a request, and submit monthly reports of its services and accomplishments. Ten churches receive assistance amounting to \$8,000 a year in all, the allotments being based on the work they do themselves. The money is paid to the congregation and any denomination may participate on the same terms.

Meeting its men on a basis of equal-
(Continued on page 200)

James A. Farrell, Master

By Oscar King Davis

Secretary, National Foreign Trade Council

ILLUSTRATIONS BY LEWIS DANIEL



"It didn't take me long to give the three-twist test to every reel of wire in that car. 'Now if you will unseal the other cars,' I said, 'I'll test them too' "

STEEL, metal of a thousand moods and uses, has a mystic quality about it that seems to impregnate those whose lives are bound up in its production. And of none is this truer than of James A. Farrell, mightiest of the steel masters, president of the United States Steel Corporation

THE world knows James Augustine Farrell as the president and chief executive officer of the United States Steel Corporation. He has made and sold more steel, by millions of tons, than any other man who ever lived. But he was born a sailor, sprung from a long line of seafaring folk, and all his life he has yearned for the sea. His brain may be busy enough in mill or office or mart but his heart is out there on the rolling blue water where his forebears sailed and strove.

Today he owns and operates the *Tusitala*, one of the last of the great clipper ships. He keeps her busy carrying cargo in every ocean, and almost every morning when he comes to his desk there is a little slip of yellow tissue on top of the pile of papers awaiting his attention—the radio report from the skipper of the *Tusitala*, giving her position at noon of the day before and telling of her progress.

It is James A. Farrell's love of the sea that keeps the *Tusitala* steadily faring back and forth around the Horn between New York and Seattle. Sentiment and perhaps a faint trace of recreation are in it, too, maybe. Yet, at the bottom, it's the old sea urge that kept generations of Farrells walking their own quarter-decks, as, I have no doubt, this

Farrell would find more joy in doing than in anything else.

His great-grandfather started the first line of ships between Holyhead and Dublin. His grandfather kept it up and his father, coming to the United States as a young man, made a considerable success as owner and master of ships that sailed every ocean.

Accident made James A. Farrell a steel man. His work in steel gives him an important rôle in the shipping business. The Corporation has a fleet of 30 or 35 deep-sea ships, not to mention its Great Lakes carriers, and Mr. Farrell is in daily consultation with the men who are the nominal managing operators. In fact it was his initiative in the early days of his connection with the Corporation that led it to acquire its own ocean carriers.

The accident that turned Mr. Farrell from a sea career and into a maker and seller of steel was the loss of his father, Capt. John G. Farrell, who sailed out of port some 50 years ago in one of his own ships which has never been reported to this day—lost with all hands and without trace. James A. Farrell was then not quite 15. He had already made a voyage

er of Steel



Although not quite 15, he had already made a voyage or two with his father, one of them carrying him around the Horn

Worked in wire mill

"I NOTICED a sort of stringency in my mother's affairs," he said to me once, in one of those rare moments when his conversation turns upon his own life. "So one Monday morning, instead of going to school, I stopped at the wire mill and got a job."

This wire mill happened to be on the way between his home and the school. By that little chance did he become a steel man.

His job was to stand near a roll with a pair of tongs, grasp a hot rod as it came from the roll and pass it along to the man at the next machine. For doing that 12 hours a day for six days a week he received \$2.50. But it helped to relieve the stringency in his mother's affairs.

As nearly as I have been able to make out in more than a dozen years of occasional bits of self-revelation under questioning, young Farrell stuck to the New Haven wire mill for about two years. Then he went to Pittsburgh, which was an early indication of his character. In New Haven there was a wire mill, to be sure, and it undoubtedly offered a certain opportunity to a lad who was strong, willing and determined. But in Pittsburgh they made steel for all the world, and if Farrell were going to be a steel man that was where he wanted to be.

As part of the steel business which he had begun to learn was wire, it was natural that he should get a job in a wire mill at Pittsburgh. It was the Oliver Steel and Wire Mill, and before he left it he made its name and its products known all around the

world. Before he was 19 he was night foreman, with 1,800 men under him.

Those who make a business of writing biographies say there is "a turning point" in every successful man's career. There seem to have been three or four in the career of James A. Farrell, and each was important. Undoubtedly the first was the tragedy that turned him from a seafaring life. The next, it seems to me, was when he was made night foreman over those 1,800 steel workers. It was a long time after I began asking him occasional questions before I got any real light on that point.

One thing must be obvious to any one who takes a fairly comprehending look at James A. Farrell today. He must have been a "broth of a boy" when he was 18 or 19. He stands a bit over six feet, and he must measure 48 inches around the chest. He has long arms and ample hands—big veined, strong hands, that were hard and capable when he was boss of 1,800 men in the wire mill.

Discipline was forced

STRONG hands, long arms, big barrel of a body supported by sturdy legs, with a solid head on top, square-set-jaw, firm mouth, fine straight nose, and Irish eyes, blue or gray, laughing or glinting, filled with comprehending sympathy or blank and unresponsive as lumps from an iceberg—that's the picture I have of the young night foreman at the Oliver Steel and Wire Mill, with 1,800 steel workers to handle from six o'clock at night until six in the morning and half an hour for beer at the beginning of the middle watch.

I said to him one day:

"How did it come, Mr. Farrell, that you



James A. Farrell

were made night foreman at the Oliver Mill so young?"

He glanced up from a pile of papers and replied:

"Mr. Oliver appointed me."

"Of course," I tried again, "but why do you suppose Mr. Oliver came to pick you for that place? It must have been a pretty tough life, wasn't it?"

"I guess it was," he said. "They were all Irish and Scotch and Welsh in the mill in those days."

"It must have been necessary sometimes to maintain discipline with fists, wasn't it?"

"You ought to have seen my brother, Bill," he said. "The morning he didn't have an engagement on the cinder bank was wasted."

"Did they keep you pretty busy?" I asked, directly.

"No, not much," he answered. "One night a man threw a file at me. The end of it was sharp and I thought he was trying to spike my head. It went by my ear and stuck in a post. I suppose it would have killed me if it had happened to hit right. I looked around, trying to see who threw it, but couldn't be sure. So I picked the biggest man in the line that might have thrown it and called him something he didn't like."

"He came at me and I knocked him down. He got up and came at me again and I knocked him down. The third time I knocked him down he stayed down and I didn't have to fight again for two weeks."

Obviously that was why Mr. Oliver had made James A. Farrell night foreman over 1,800 Irish, Scotch and Welsh.

Another incident had to do with the nightly half hour for beer. The mill gates were opened from 12:30 until one, but the men were expected to be back sharp at one o'clock. Under the young foreman some of them thought they could take liberties, and began to straggle back after one o'clock. Little by little the straggling grew worse. Then one night the young foreman decided he had had enough of it. When the whistle blew at one o'clock he had the gates shut and the stragglers were locked out. There was nothing for them to do but go home and lose half a night with corresponding docking of pay.

Demonstration to no avail

SO MANY were outside that Farrell found it unsafe to go on with the mill operations, and he shut down. At six o'clock, his usual quitting time, he went home himself. He had not much more than got to bed when a messenger called saying that Mr. Oliver wanted to see him at the mill. Up he got and tramped back to the mill.

Mr. Oliver wanted to know what it was all about. Farrell told him. If the men were permitted to straggle half an hour they would soon be straggling an hour or more and night operations might as well be given up.

Mr. Oliver agreed that it was the right course, and the night men learned that the young foreman had the full support of the owner. But some of them felt that they ought to make at least a little further demonstration. So they sent a committee to Farrell to warn him they intended to kill him.



"I just looked at the man and said, 'Drop that gun,' and he dropped it"

"Where?" asked Farrell, "and when?"

"Tomorrow evening when you come to the mill," was the reply.

"All right. I'll be there," said Farrell. He was, but the killers were not.

The men got another glimpse of the Farrell quality somewhat later when one of them thrust a revolver in his face.

"What did you do?" I asked Mr. Farrell, when he casually referred to the incident.

"I just looked at the man and said, 'Drop that gun,' and he dropped it," was the reply.

Past that second turning point—his promotion to the night foremanship—young Farrell was promptly headed toward another. He was in the production end of the steel business, and making progress. But selling seems to offer more opportunities for promotion than production, and although he made steady advancement toward the top of the line he was in, it is not likely he would have been made president of the Steel Corporation without selling experience.

Considering this, I asked him one day how he happened to get into the selling end.

Standard test for brittleness

HE WAS superintendent of the Mill when that came, in general charge of production operations. One day a buyer in the Middle West rejected three carloads of wire on the ground that it was too brittle.

Mr. Oliver wanted to know more about it. He said to Farrell:

"Could you go and test that wire?"

"I can go anywhere you want me to go," replied Farrell. As for testing the wire that was easy. You simply took hold of a bit of the wire with both hands and gave it a sharp bend, together and out again, three times. If it didn't break it was not too brittle. That was the standard test.

"I went to the buyer's place," said Mr. Farrell, telling me about it, "and walked down into his yard. There I found the three cars on the sidetrack, and I noticed that only one of them had been unsealed. I rolled back the door and tried some of the wire. It was not brittle. So I shut the door and walked up to the office."

"I introduced myself to the buyer and told him I had come from the Mill to test that wire. He said, 'You can't test that wire.' 'Oh I think I can,' I replied. 'If you will come down to the track with me we'll see.' So we went down and I rolled back the door on the car that had been unsealed. It didn't take long to give the three-twist test to every reel of wire in that car. Then I jumped out and said:

"'Now if you will unseal these other two cars I'll test them, too.'"

"But he didn't think

(Continued on page 196)



He owns and operates one of the last clipper ships

New York is a Farming State

By JARED VAN WAGENEN, JR.



A FEW phrases like "the industrial East" and "the agricultural West" sometimes warp our vision of the true picture of the country. Not long ago an Iowan called attention to this fallacy by showing that the output of his state's factories rivals that of its farms. Now a New Yorker demonstrates that Iowa isn't the only versatile state. New York's farms, like Iowa's factories, are mighty, though unsung



The rustle of corn has been heard in New York fields since the early days of the Six Nations

lion homes where at evening families of kindly, loving folk find happiness and content in simple ways.

Or perhaps the Genius of the State is to be sought where the blast furnaces of Lackawanna paint a red glow on the lowering clouds at midnight—or in the magic city of Schenectady where every day mortal men perform unbelievable miracles of science—or in that Mohawk Valley where shuttle back and forth those fleets of swift far-bound limited trains which when the darkness falls seem to the onlooker like a flight of lovely, luminous arrows shot through the night.

It is in ways such as these that New York State declares herself. Her name has become synonymous with them. Who thinks of New York thinks of factory chimneys, of traffic hurrying through crowded streets, of gay boulevards, spangled with lights. No wonder then that men find it hard to remember that even yet there remains the Hinterland, where the patient heroes of the soil still plow their ancestral acres and still reap the labor of their hands.

No other commonwealth challenges New York's right to be called the Empire State. Measured in terms of wealth, or population, or commerce—measured by any of the standards by which we are accustomed to compare one state with another, she tops her competitors. For this reason we only rarely draw the agricultural comparison, yet it is sober truth that in the products of her farms and in the character of her rural civilization, New York stands surprisingly near first place.

Agriculture preceded the white man

IN PASSING, it ought not to be forgotten that from immemorial time Central New York has been the seat of a noteworthy agriculture. Men wise in Indian lore agree that the most advanced aboriginal culture on this continent north

A MULTITUDE of reasons make it difficult for the man on the street to think of New York State in terms of agriculture. In popular imagination the Empire State is best symbolized by that roaring city whose towers of steel and concrete rise from the bed rock of the little island in the mouth of the Hudson River and form canyons through which forever hurry jostling crowds of men and women.

Or we may seek the Spirit of New York in her financial institutions where men talk glibly in terms of hundreds of millions of dollars or in her Exchanges, or her garish hotels where Prodigality disports itself or along glittering Broadway, ablaze with lights, where the talent, the wit, the beauty of the nation gives life to numberless theaters—or in a mil-

of Mexico was that of the six tribes that made up the Iroquois Confederacy.

The Iroquois, even at the summit of their power, were not a numerous people. Estimates as to their population are at best rather vague guesses, based upon the number of warriors that could take the field. The story runs that the Senecas (the Keepers of the Western Gateway and the largest of the six tribes) once took a tribal census by the unique plan of having each citizen drop a kernel of corn into a husk basket—and the basket was filled. Unfortunately we do not know the size of the kernels or the capacity of the basket.

The Indians made an empire

THE best estimates are that the Iroquois never exceeded 20,000 all told, a most insignificant population to occupy a country that stretched from Schenectady to Niagara and comprised the heart of New York State.

Nevertheless, such was their prowess that their overlordship was acknowledged and their writs ran literally for a thousand miles—from Montreal to North Carolina and westward to the Tennessee River. Someone has called them "The Romans of the New World" and surely they did possess something of the Roman genius for law and order and conquest. By their council fires and at their national capital—the Long House on the shores of Onondaga Lake, not far from where Syracuse now stands—they achieved a rather advanced type of representative democracy. Their council assemblies gave them much training in speech making and certain of their sachems were born orators. Some of the speeches of Chief Red Jacket have been preserved and even in their English translation they exhibit an impressive dignity of phrasing and a wealth of nature imagery of genuine poetic beauty.

Moreover, the Iroquois had gone beyond the mere hunting and root-digging stage and had built up a very considerable agriculture. All over their domain, snuggled in the elbows

of fertile valleys, were fields of corn and beans and squash and tobacco. It is told that, when in 1789 the first white pioneers came to Ithaca, they found three hundred acres cleared and ready for their plows—the ancient maize lands of the Cayuga Tribe.

Even allowing for contemporary exaggeration, Sullivan's raid revealed a relatively extensive agriculture. The story runs that the army destroyed 30,000 bushels of corn besides great stores of beans and dried fruit and that for three days the soldiers did little except uproot and trample the lush fields of growing maize.

But more remarkable than the Iroquois' corn fields is the fact that instead of being wandering nomads, they were so settled in their habitation that they planted orchards. Neither the apple nor the peach was native to America. They came with the early colonists but the Iroquois adopted them and carried them into the wilderness a hundred years ahead of the advancing line of settlement. Their horticultural habits account for the orchards that Sullivan's expedition destroyed. Within recent years the writer has seen near Geneva, at the foot of Seneca Lake, a little group of incredibly ancient apple trees—remnants of these Indian plantings.

There is genuine romance in this earliest New York State agriculture. It is worth remembering that it was from these aboriginal farmers that we received Indian corn or, as the botanist calls it, maize.

Remained friends of the English

THE FATE of the Iroquois is one of the pathetic tragedies of history. For the first century and a half of our New York development they maintained, on the whole, amicable relations with the Dutch and later with the English. At the outbreak of the Revolution most of them cast their lot with Britain so that, as they explained, they might keep unbroken the Covenant Chain which they had made with the Great



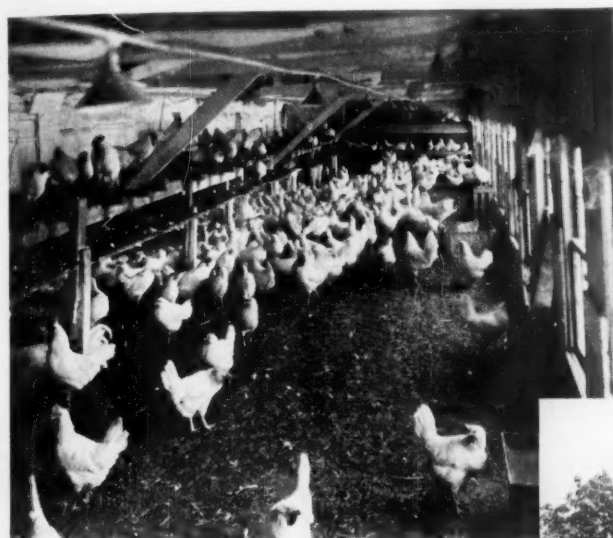
COURTESY NEW YORK STATE COLLEGE OF AGRICULTURE

Some 1,400,000 milch cows—enough to form a procession, four abreast, from Buffalo far out onto Long Island—are numbered in the herds that graze on New York farms

White Chief who ruled in the Long House beyond the sea. In keeping this faith they were guilty of cruel forays on Wyoming and Cherry valleys.

The next year—now 151 years ago—the Americans retaliated by Sullivan's raid, carried out by 1,500 troops from New York and New England. Just east of Elmira they met the Iroquois in pitched battle. The Indians were defeated. From there on the advance was hardly more than a triumphal march through the heart of the Confederacy. Sullivan harried them with fire and sword. The Colonial forces killed the warriors, burned their villages, cut down their orchards, uprooted their corn fields and returned home leaving behind them a smoking desolation.

That one six-weeks campaign not only destroyed the Iroquois' material resources but shattered their morale, as well.



Poultry and poultry products add their share to the State's agricultural wealth

Never again did the Iroquois, except in obscure and furtive fashion, venture to set themselves against the white man. By the standards of their era, they had reigned a long and halcyon day but now they passed swiftly off the stage of history.

Twelve years later, at Canandaigua, Timothy Pickering, as sole signator in behalf of the United States, and more than 50 chiefs and sachems in behalf of the Six Nations signed a treaty by which, except for certain small reservations, they definitely relinquished all claims to their ancient corn fields and hunting grounds. Thus the coming of the European at first interrupted and a little later definitely extinguished the most advanced Indian civilization within the bounds of the United States.

It is at least conceivable that, left to itself, this promising beginning might have gone far.

Living on their half-dozen or more reservations, we have still in New York State between 6,000 and 7,000 Indians, most of them belonging to the Six Nations. By a pathetic legal fiction of their own they are not citizens of the United States nor yet vassals, but a proud, free and independent nation. Their precise legal status seems to be in great degree an uncoded twilight zone. In the World War they were not subject to the draft but they declared themselves allies of the

United States and went to the front in surprising numbers.

The white man's agriculture in New York State goes back more than three full centuries. As a colony we are, say, seven years younger than Virginia and six years older than Massachusetts and it seems probable that in the Hudson Valley are fields which have known the plow longer than any others in America. As a colony we began early and got away to a bad start.

As late as 1755 New York stood only eighth among the 13 colonies. At that date New York had a population of only 55,000, while Pennsylvania had four times that number and little New Hampshire had 75,000. Even as late as the first federal census in 1790, New York held only fifth place, with a population of 340,000. Of these more than 21,000 were slaves.

A natural center of transportation

VIRGINIA remained the Empire State until 1820, when the title passed to New York.

Not by accident did New York become greatest of the states, for within her borders lies the only break in the Appalachian Chain and therefore the one water-level highway from the Mississippi Basin to the sea. Through the Mohawk and Hudson valleys must go the traffic of a continent. In all America there is no other highway as crowded as this.

From the very beginning New York possessed one outstanding economic advantage. In the Hudson River she had



An average of seven million tons of hay a year is cut from New York fields. No other state in the Union grows as much

a straight, easily navigable corridor running 150 miles into the interior.

But the great factor in the State's development was the Erie Canal—Dewitt Clinton's famous "Ditch." Begun at Rome in 1817 and completed in 1825, it was the engineering marvel of the world.

In truth it was a wonder, stretching straight away 300 miles from the Hudson to the Lake—bridging rivers, crossing what seemed bottomless swamps, cutting through long stretches of unbroken forests. It was built almost wholly with pick and shovel, wheelbarrows, ox dump carts, "buck scrapers" and of course the patient bull strength of husky men. Behind it all was the priceless asset of a great popular

(Continued on page 204)



"Candling" eggs as a means of determining their freshness is one of the oldest uses of light as a tool

POWER used in ever increasing quantities, tools made available in endless variety for special purposes, and both applied with intelligent skill: these are vital factors in maintaining today's scale of living. These factors afford a means for the direct comparison of prosperity in nations and standards of living.

A tool can have any form and be made of any material as long as it will help accomplish a given purpose efficiently. Speed, durability, accuracy, and dependability are the prime requirements.

Light is one of our unique tools. Stenciling with light preceded methods underlying our photographic industry, which is reared principally on the chemical fact that some salts of silver, such as silver chloride, silver bromide, and silver iodide, are darkened when exposed to light. The reaction is complex and is followed by development and fixing, giving us in the end negatives and positives which have become intimately associated with our daily activities.

Banks have come to depend on tiny photographic records of checks for protection against some types of fraud. A

series of photographic images varying in area or in intensity and placed along the narrow margin of a motion picture film is a part of the process for one popular method of sound reproduction. A small beam of light rapidly transverting a photograph is an essential starting point in the transmission of pictures by wire or wireless.

An indispensable servant

THE records of business, the industrial applications of photography, the education, entertainment, and amusement of the public through means of films and other types of photographic reproductions have become well nigh indispensable features of our daily life.

The optical pyrometer, which has taken all guess work out of very high temperature operations, such as those necessary in metallurgy and in glass manufacture, is an instrument of precision, depending on light emitted from hot bodies. Before it was perfected, important manufacturing processes depended for their success on the educated eye of some trusted employee. The accuracy of his observations varied di-

Light Has



THE expression "light work" is taking on new meaning as many industries find that beams of light can actually do many jobs faster and more accurately than men. Here are some ways this new and versatile tool may be used

rectly with his habits of life, his digestion, and his general state of mind.

The wave length of light from burning chemical elements affords us the present accepted standard for linear measurements. Other materials, even platinum and quartz, undergo some volume change when temperatures vary. Even though such changes be slight, it is obvious that any measurement so important as that of length must rest on an unchanging standard. The wave length of light emitted when a pure element burns is uniformly constant. Such light, called monochromatic light and usually derived from sodium, is employed when accurate measurements are to be made of sugar purity with an optical instrument called a saccharimeter.

The spectroscope, as the name indicates, is used in examining the spectrum resulting when emitted light is broken into its components by a prism. The number, character, and position of lines in the spectrum provide a trustworthy means for accurate analysis and for positive identification.

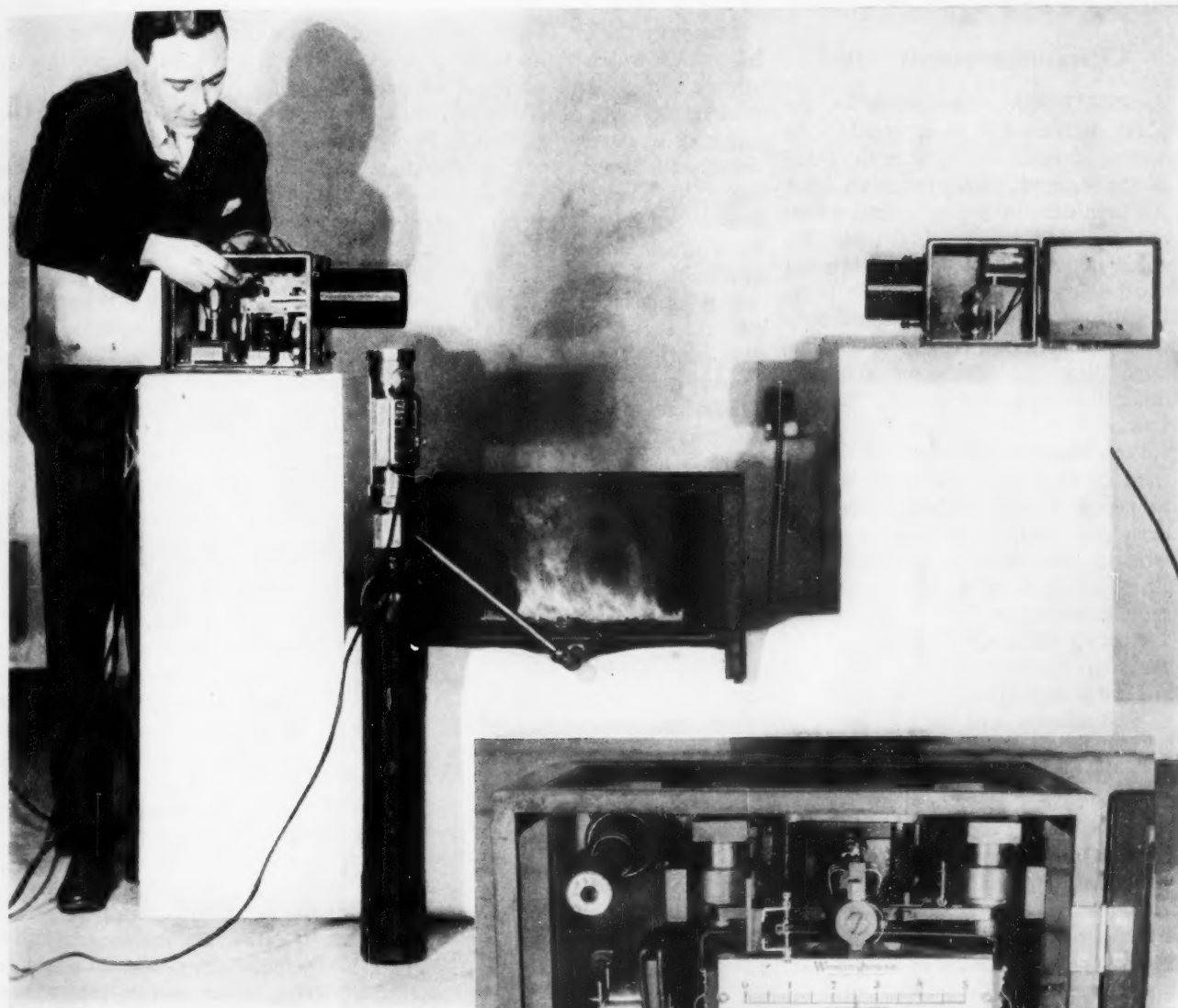
The sensitive electric eye

PERHAPS the most striking example of light as a tool is found when we introduce the photo-electric cell or "electric eye" to use one of its common names. The photo-electric cell is a device which makes the most of the ability of some chemical compounds to change extremely small differences in light into equally small differences in electrical impulses. One enthusiast said that if a

Been Trained to Work

By HARRISON E. HOWE

Editor, "Industrial and Engineering Chemistry"



This device for determining smoke density has many applications. It may even become a fire alarm

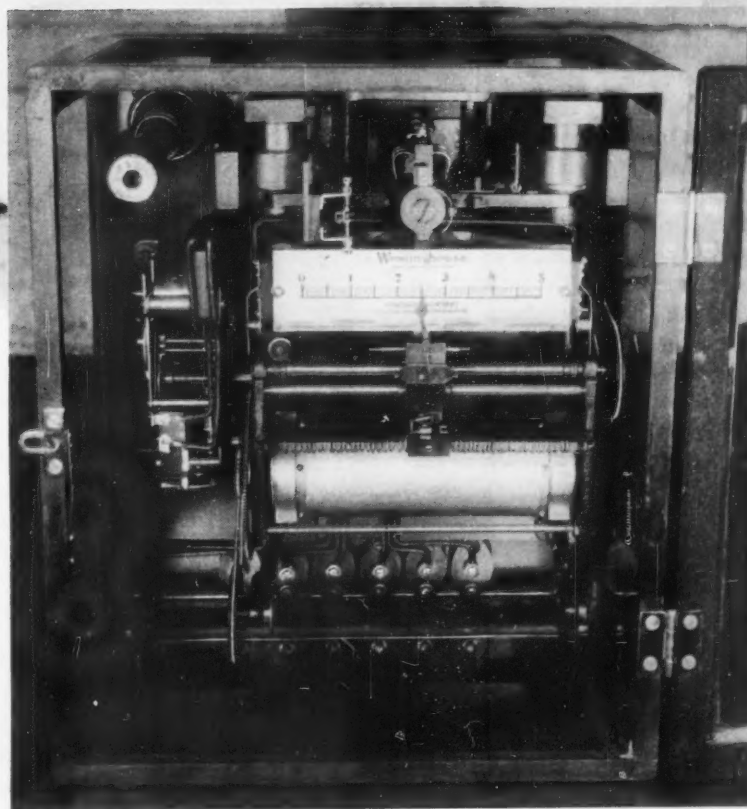


photo-electric cell were pointed at the moon and the man in the moon should light a match the cell would record the difference in luminosity.

In any event, the cell does respond quickly to differences in light reflected, so small as to be noticeable by no other means. One such cell made possible the optophone, an instrument developed in England, by which the printed page may be read aloud to the blind. The letters

of the alphabet reflect different amounts of light because the proportion of ink and white space for each letter differs. Light reflected by the printed page falls on a photo-electric cell. By a series of devices the electrical waves this sets up are converted into sound waves. The result is a series of sounds which, though not as distinct as the spoken word, nevertheless enable the blind who work with it soon to understand what the instrument is reading.

Cigars are accurately sorted

A PRACTICAL application of the photo-electric cell is to be found in the sorting of cigars according to the shade of the wrapper. Heretofore such work has been done by young women, whose eyes naturally became tired under the strain of continually deciding between small differences of color. Besides being fatiguing, the work must have been deadly monotonous. Now in at least one large plant the cigars are conveyed under the photo-electric cell. The difference in the light reflected from the various shades is sufficient to start a train of electrical devices which open trap doors through which the cigars pass to a pile having the same shade of wrapper. The cell does not grow tired. The sorting is rapid and more accurate.

Another illustration is found in the adaptation of the photo-electric cell to certain types of inspection. Packages with labels are passed by the cell, while the device it operates discards the unlabelled packages. These mechanical operations are, of course, achieved through the use of the vacuum tube which releases amplifying quantities of energy as directed by the tiny impulses received from the photo-electric cell.

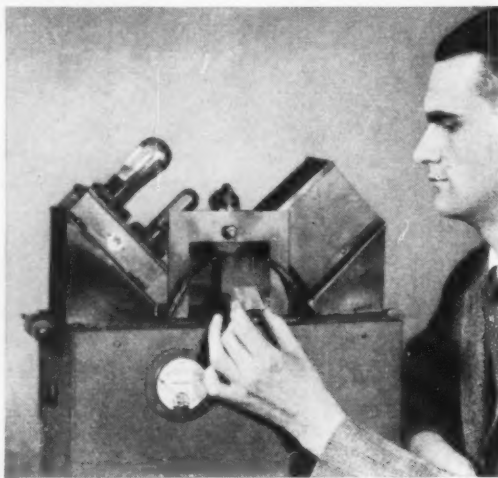
Still more recently the task of analyzing and recording colors seems to have been achieved, employing light as the tool. The color to be measured and recorded, whether it be on paper, metal, leather, or what not, reflects light which is broken up into the spectrum by a prism. The photo-electric cell causes a curve to be permanently recorded. Any other sample from which an identical curve is produced will be of exactly the same shade.

If anything interferes with a beam of light directed on a photo-electric cell, devices can be arranged to effect all sorts of results. If smoke gives the interference, the photo-electric cell becomes a part of a fire alarm system, or it can be

made to operate the sprinkler heads. Similarly, a beam from a watchman's flashlight thrown on a cell in a store window can be made to turn on the illumination which is automatically turned off when the inspection has been completed. It has been predicted that this same device will some day be applied on a large scale to city street illumination, automatically turning the lights on or off, depending on a predetermined degree of natural light.

Obviously the interference of a passing vehicle with a small beam of light affords a method of counting. In one western city such a cell keeps faithful and untiring tab on the number of passing vehicles. In another city a cell counts the motor vehicles passing through tunnels, enabling those in charge to know at all times how many vehicles are within the tunnel as well as the volume of business done. Still a further example is found in a city where intervals, during which black smoke is emitted from chimneys, are recorded.

Interference with a beam of light is the basis of a satisfactory burglar alarm which is set in motion even before the safe door is touched. In this, visible light need not be employed, for the invisible infra-red may be used for the same pur-



In this device the electric eye is employed to pass labelled packages and reject unlabelled

pose. Interference with this unseen beam is sufficient to set off the alarm, to turn on the illumination, and operate such other devices as may have been provided to trap the criminal.

From what has been said it is easy to see how a slot machine may be devised to make change when paper money is offered. Surely if a photo-electric cell can distinguish printed words, as in the optophone, it can set in motion the right

device to change bills of whatever denomination may be offered. The perfection of such a device in future may have a decided bearing on merchandizing methods.

Light also has its place in chemical reactions. It causes changes in the oils in paints and varnishes, which lead to the production of the hard, protective film. In other cases an incandescent lamp of given intensity is hung within the reaction vessel to speed chemical reactions. Certain schools of medicine look on light as an important therapeutic agent.

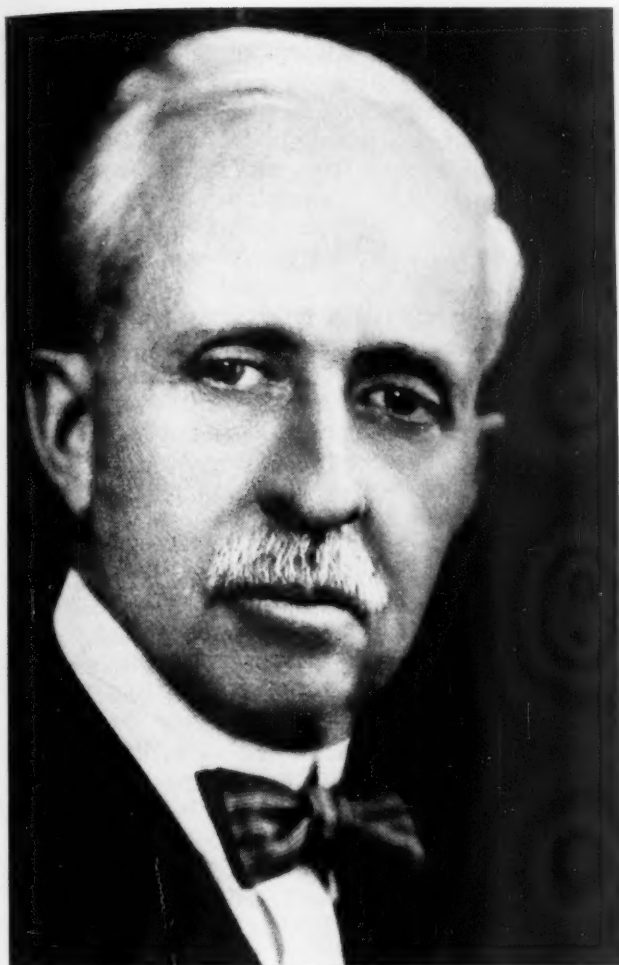
Light is also used in the decoration of metals. One important division is photo-engraving, which although accomplished with acid baths and other etching mediums, depends on "resist" materials to protect those areas of metals that are to be left intact. Glue, egg albumen, or shellac are among the materials sensitized with sodium dichromate and used as resists. When exposed to light, these materials become insoluble, while the covering over the parts to be etched remains soluble and is washed out before etching.

Certain oil varnishes have also been shown to be good etching resists, and there was reason to believe that by suitably sensitizing them, desired improvements could be made in preparing a resist material for a different type of etching. There was also reason to believe that some of the synthetic resins would be found useful. These latter assumptions were made by Murray C. Beebe when he undertook to apply photo-chemistry to the decoration of metals.

A new metal decoration

ONE of the interesting synthetic resins prepared with furfural, the much discussed chemical of many uses derived from oat hulls, was employed and a whole range of materials examined for their possibilities. Furfural was known to change its color when exposed to light, and this indicated the wisdom of sensitizing solutions of partially condensed synthetic resins with lead iodide and similar compounds capable of liberating chlorine, bromine, or iodine. The purpose was to ascertain if light, on liberating a halogen, would hasten the condensation reaction at the exposed areas, thus forming an image composed of insoluble resin. This conception opened up an entirely new field for investigation, and

(Continued on page 180)



A recent photo of J. C. Penney

Making Men Into Merchants

By E. C. SAMS

President, the J. C. Penney Company



WE HAVE often heard it said that the young man who allies himself with a chain organization is closing the door of opportunity in his own face. As we try to present both sides of any debatable question we asked Mr. Sams to tell us his views

CHAIN stores, possibly because of their success, are receiving a considerable measure of criticism and reappraisal. Every part of the retailing system is undergoing close scrutiny for flaws.

Much of this criticism is so clearly selfish and prejudiced in origin as to answer itself. From an economic standpoint, the chain-store system of distribution can well afford to rest its case on the record of its savings to the consuming public.

One criticism, frequently heard, is that "chain stores stifle individual initiative and limit men's possibilities." It is my purpose to discuss this assertion and to attempt to weigh its soundness in the light of real facts.

Naturally, I cannot claim to speak for all chains. No one would be willing to place all independent merchants or all department stores in one class and say that every one operates exactly alike or shows the same results.

It is equally clear that no one can believe that all the 5,000 or more chain systems in this country operate in the same exact channels or deal with all factors identically.

Therefore, I shall attempt to write only from the experience of the company with which I am associated.

The J. C. Penney Company operates today about 1,425 small or medium-size department stores. The 1929 sales totalled 209 million. We have stores in every state. In 1902 this chain started with one store and the year's total sales were less than 29 thousand.

This brief statement emphasizes one fact that the man who wants to know the effect of the chain type of operation on the individual cannot ignore. The fact is fundamental:

A chain-store system is a growing organization that continually develops and increases its purposes, its operating methods and its opportunities.

A sound plan succeeds

ALL successful chain-store systems with which I am familiar started as single stores. A man with a desire to be a merchant opens a store. At the beginning he probably has some ideas about the kind of merchandise he wants to sell, the type of store he will set up, the way it should be operated. If this un-

derlying idea is sound and is definitely outlined and practised the store succeeds. If the idea is unsound, if the owner shifts from one plan to another or forgets his plan, the store fails.

The greatest single cause of retail failure is incompetence. Incompetence, the dictionary says, is "lack of ability." In retailing, it might be defined as "lack of planning." In this respect, the chain-store system, with a comprehensive plan of operation, supplies the first ingredient for the success of the individual.

A former director of the J. C. Penney Company once described the beginnings of this Company in a single sentence:

"This Company started with a man who had an idea, vision, courage and \$500."

The original store prospered because the underlying plan was religiously followed. Gradually the original purpose became more comprehensive. To the mother store, other stores were added. With the addition of other stores, more men came into this organization. Each brought something to the development of the original purpose.

Frequently Mr. Penney has been called "the man with a thousand part-

ners." This Company operated for many years under a plan which made each manager a partner in his own store. Many men, by training associates, became partners in several stores. The intent was that every man who made good should be a part owner in the store or stores created through his efforts.

Three years ago the size of the chain and its success compelled a change. Under the present plan, store managers share as generously as at the start in the earnings of the store they manage but their permanent ownership is in terms of stock in the entire Company and not in individual stores. Under both the original plan and the new plan, more than a thousand men have achieved a success that few, if any, could have achieved as individual merchants.

Naturally, a purpose that is firmly established and that continuously develops will create definite methods of doing things.

In the case of the chain, these standardized practices are not set up by some central group overnight and clamped down on the great body of associates.

They are always the result of thinking and planning and experience of many men.

We are constantly receiving requests for information from many sources. Among the questions most frequently asked are:

How do you handle the financial setup

and control the expenses in each store?

How do you control the merchandise investment in the stores?

How do you adjust to local needs the buying of 1,400 stores widely scattered and meeting widely varying conditions?

If we trace briefly the answers to these questions, we shall see how successful standardized methods grow naturally with a growing organization.

Our first store and the group that followed had only fragmentary records. For nine years our Company's books were kept with old-fashioned single entry bookkeeping. There wasn't even a daily cash report. The controlling factor in store operation was unceasing vigilance over expense. But in 1911 a few men recognized that, because the business was growing rapidly, records must be kept.

Daily cash report now made

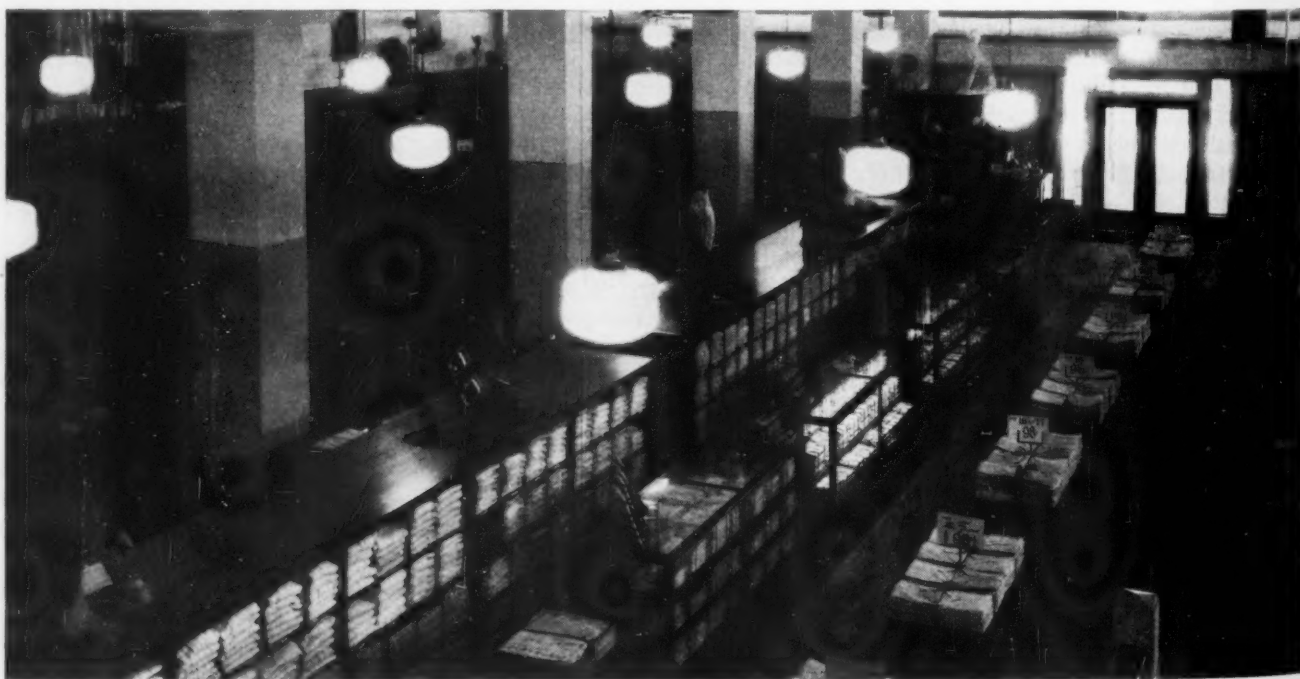
ONE of these men devised a daily cash report. He worked it out and tested its effectiveness. The idea appealed to his associates and all our stores adopted the daily cash report with a simple balance sheet. This report has been modified several times but its general form is the same.

The point is that the report was set up at the start by an individual and that other men have used this first plan as a basis for improvement. The report itself has not held back the individual manager but has helped him to check his own job and to better his own efforts.

The story of our merchandising records is much the same. In the earlier stores, most of the managers knew little about their merchandise investment. Turnover, stock on hand, future commitments, were all matters of guess work or of a rough estimate according to the individual manager's keenness.

The stores' growth, both in size and number, created the need for a closer grip on the merchandise, its quantity, its flow and its condition. Here and there individual managers were coping with this problem. Each successful manager instituted some sort of a plan. Out of a study and comparison of these different plans and out of the frank interchange of opinions came our present merchandising record which gives us an accurate check on the stocks in the individual stores. This record is intended to help the individual manager rather than as a control sheet for some central office. It is not perfect—it never will be perfect. It will always be open to change and to modification as the need is found. The reason for this apparent instability lies in the demands of growth.

The plan we now operate, however, had been tested widely and we knew it would work before it was made uniform practice for all the stores. The test-out plan is one of the greatest, if not the greatest, advantage of the chain-store system. It makes possible comparison of methods, selection of the best, and the testing of any plan by one store or by a group of stores before the entire



A view from the balcony looking down on the men's department of the Penney store in Reno, Nev. Effort is made to adapt each store to its community

chain adopts it. The independent merchant cannot make such tests without jeopardizing his entire investment. Merchant associates and trade groups attempt this and there is no change of the benefits they confer on their individual members. These attempts, however, are frequently handicapped by jealousies, fears, perhaps even a certain measure of caution that prevents free discussion and interchange of plans. This freedom of discussion is possible within a chain.

Methods are growing

WE have indicated that our method of financial and stock control has resulted from growth. Every other phase of store operation has gone through and is continuing to go through the same process of growth.

Store locations, types of fronts, location of departments, advertising and display methods, the manufacture of certain types of merchandise, all have been worked out and are being worked out through individual effort.

Many times we have been told that, in towns where we have stores, the other stores have improved. Through such improvement small towns increase their trading areas and attract new customers.

This type of community benefit does not come about through any one chain, nor is it even limited to chains. An outstanding independent store often has the same effect. Naturally, the intelligent independent is ready to take over just as much as he can of the knowledge that the chain has acquired.

Viewed in this light, the chain store must be reckoned as a great school of merchandising. In the J. C. Penney Company, it has been our aim to make each store definitely a training school for merchants. In the earlier days, a man was responsible not only for operating his store but, before he could expand, he had to train a future partner capable of management.

Today a manager's success and his influence with the Company are measured

by his ability as a merchant and as a man trainer.

Training its own managers

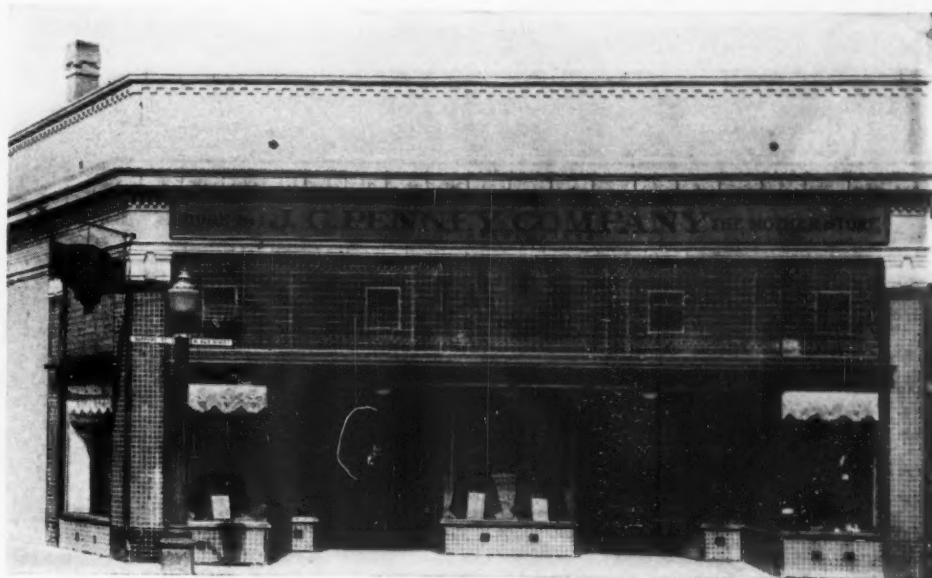
THE growth of the Company resulted in the establishment of an Educational Department, with, among many functions, a free, general training course. This course has more than 6,000 graduates and the enrollment has totalled more than 11,000. Our stores hold regular store meetings designed to develop the ability of the individual associates and the service given by the store.

The Company has insisted that, before a man becomes a manager, he must spend some years in training with this

Company. We do not hire men as store managers. We employ men to train for future managerships. Such a man, having completed his training, will vision clearly our Company's purpose and know how to use to full advantage its collective experiences and tested methods.

This statement answers the question as to how our stores and managers adapt themselves to widely varying conditions. It is undesirable and impossible to standardize intelligent human beings. It is practical to standardize methods. When a man has been thoroughly trained in sound methods he will operate a profitable store in a way to serve the community adequately.

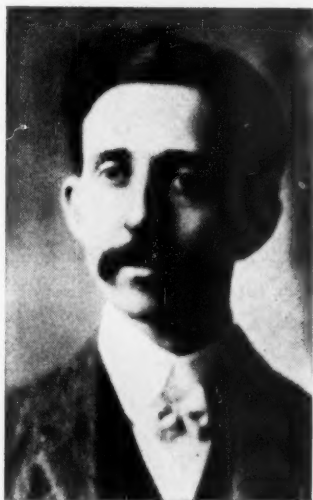
Since retail business as a whole pre-



The present store at Kemmerer, Wyo. It occupies the site where Mr. Penney opened his first store in 1902



Birthplace of the Penney chain, the Kemmerer store as it looked when Mr. Penney opened it



Mr. Penney in 1902



A section of the women's wear department in the Reno, Nev., Penney store



A typical sales meeting in a Penney store. Each manager must train a successor to take his job before he can advance in the Company

sents a rather gloomy picture, the advantage is obviously with the individual who ties himself into the organized purpose of a chain. The young man starting out to be a merchant faces a definite choice. As an independent, he must discover the right methods through study and through costly tests by trial and error. Always he risks his time and money on the chance that he may hit the right way.

As an associate in a chain, he has every chance to acquire fundamental business principles and plans that have already been proved. The final success in either case will be affected by his individual ability, but with the chain the training and knowledge are his for the taking.

I am reminded of a conversation one of our associates had some time ago with a representative of a great bank.

For years the banker had represented our organization in the Southwest. He said:

Managers are made by training

"I DON'T know just how your Company does it but it certainly makes merchants out of the most unexpected material. I know several of your managers and grew up as a boy with them. Particularly, I have in mind your manager at ———. He and I came from the same little town and he went broke there several years ago running a small business of his own. I have never been able to figure out just what you did to him so that he could handle the store he now manages. They tell me that your volume in that store is nearly a half million."

That man has been highly successful

as a manager of the J. C. Penney Company store. Why? Isn't it possible that when he found the road too long and hard to learn, by himself, all there is about merchandising, he joined a chain organization, both to bring what he had himself and to learn the plans collected by other men? The chain gave him a standardized method of procedure, some keen tools ready for his use, but it was up to him to put them to work. To be sure, the man had real ability. The disciplined development of the chain released his ability with splendid results for him personally, for the Company and for his community.

Rather than throttle the individual, the chain system strengthens even the man of limited ability by giving him a purpose and training. Naturally this increases his chances for success.

The average man finds in the chain a training school that increases his chances of success. For the exceptional man, the chain system offers much more. Instead of limiting him, it strengthens his inherent ability by supplying the training for exceptional progress.

A merchant's first job is to supply the merchandise needed by his community in a way that best meets the community needs. Our buying departments force no merchandise on any

(Continued on page 102)

Dulling the Axe of Dismissal

By EDWARD S. COWDRICK

Author of "Manpower in Industry" and "Industrial History of the United States"

DECORATIONS BY SYDNEY E. FLETCHER



The increased stability of labor has brought significant results

FARMER JONES sells butter and cream and eggs. For ten years he has brought his produce to my door twice each week, and I have paid his bill every month. Then one day I decide to sell my house and move away, or the doctor orders me to go on a diet and quit eating butter and cream and eggs. So I tell Farmer Jones that I shall not buy any longer. He replies that he is glad to have had my trade for ten years. Nobody in town thinks that I ought to keep on paying money to the farmer when I no longer need his wares.

Molder Smith is hired by the Behemoth Metal Company. For ten years he has worked every day in the foundry, and the paymaster has handed him his wages twice a month. Then one day the company decides to shut down the foundry, or to close the plant entirely and move away, and the foreman tells Molder Smith that he will not need him any longer. He replies that he is sorry to lose a good job, but that his back wages are all paid and that he is glad to have had steady work for ten years. Nobody in town thinks—

Wait: something seems to be wrong with this picture. In real life, Molder Smith's reply is not likely to be the same as Farmer Jones', and the opinion of the public is tolerably certain to be quite different in the one case than in the other.

But why? If I can buy butter and cream and eggs as long as I need them and quit when I please, hasn't the Behemoth Metal Company the same privilege when it "buys" labor? Some people think it has. Nearly everyone used to think so. But in recent years there has been a distinct trend away from the idea that labor is bought and sold, and toward a conception of employment as a lifetime relationship.

This trend represents one stage in an

he found it convenient to do so.

But in recent years this tendency toward independence and irresponsibility has been reversed. One of the most significant aspects of modern industrial relations practice is the growing permanence of the employment relationship, particularly in the larger corporations. The man who works for one employer for ten or fifteen years, even if he does not actually obtain a vested right to his job, at least builds up a presumption that he will finish his active service in the same company. To break off the connection becomes a serious

★ **THE EMPLOYER** who must occasionally lay off workmen of long service faces serious problems. Has he an obligation to the workman? If so how great is this obligation and how should he meet it? As an employer you will probably face this situation. Here is how other men are meeting it

interesting evolution. The medieval serf, under the feudal system, was not free, but he was protected. His right to a living from the land to which he was bound was generally respected, whatever his capacities or his opportunities as a laborer. With the breakdown of feudalism the worker gained freedom but lost security. He could work or not, as he pleased, and for whom he pleased, but if he failed to find work he was likely to starve. The industrial revolution and the emergence of the factory system speeded up this change. Until the end of the nineteenth century in the United States and most other industrial countries labor was bought and sold, with almost no conception of an obligation on the part of either employer or employee to preserve the relationship longer than

step not to be taken hastily by either party.

This increased stability of labor has brought varied and significant results. It is partly responsible for at least these developments in present-day American industry:

Labor and management have gained in efficiency through the reduction of labor turnover and the increased security of the job.

Wages and standards of living have been increased, since men who have steady work earn more than those who are forced to shift from shop to shop.

The gap between the man with a job and the man without a job has grown wider, because increased stability lessens the number of vacancies that are to be filled. It is more difficult

than formerly to release the worker of long service who for any reason has become superfluous.

Many companies hesitate to accept into a permanent relationship men who have reached or passed middle age, and therefore set maximum hiring-age limits.



The reduction of labor turnover has increased efficiency

The industrial pension obligation has gained general recognition among the larger companies.

The pension takes care of the superannuated worker—the man of 65 or 70 who has given a lifetime of service to his employer. But with the modern conception of the permanency of the employment relationship has come a realization that serious problems arise when, for any reason, men of considerable service must be laid off before they have qualified for pensions. The shut-down of a plant, or a drastic reduction in the working force, may make many such lay-offs necessary. Each one carries potential tragedy for the individual worker and his family.

"Industrial alimony"

IN AN EFFORT partially to solve these problems, a considerable number of liberal-minded employers have adopted the expedient of paying laid-off employees cash indemnities. These payments, usually called "dismissal wages" or "lay-off compensation" (a Chicago newspaper reporter coined the phrase "industrial alimony") usually are graded according to age and length of service.

While the custom is too new to have permitted the development of a standard practice, it is rather common to pay the equivalent of a week's salary or

wages for each year of service. Occasionally the payment is more liberal—perhaps as high as two weeks' wages for each year. Usually a minimum length of service—perhaps ten years—is set as the point at which payment of compensation begins; employees of less service are dismissed without indemnity, or with merely a week or two weeks' notice. Sometimes there is an absolute maximum—typically a year's wages—which limits the payment to a laid-off employee, regardless of his service record.

It is noteworthy that some employers, in fixing schedules of lay-off compensation, provide a definite differential in favor of the man past 40 or 45 years of age, thus recognizing the difficulty which this man will experience in finding another job. Thus one company pays one week's wages or salary for each year on the pay roll to persons dismissed after 15 years' service, but lowers the requirement to ten years in the cases of those who are 45. Some other companies, instead of lowering the service requirement, compensate men past 45 on a higher schedule than that applied to younger workers.

If the worker has qualified for a pension, or has nearly done so, he usually is put on the pension roll at once. Some companies have provided reduced pensions, payable for life, to men who must be laid off when they lack only a few years of age or service to qualify under the regular rules.

Usually the compensation is paid in a lump sum in cash. A few employers have experimented with the payment of part wages for a definitely limited period, but the results have not been the most happy. For one thing, it is difficult to convince the laid-off employee



It is difficult to release the worker who has become superfluous

that the termination date fixed for the allowance actually means what it says. As long as he is drawing a weekly or monthly stipend from his former employer, he thinks of himself as still on the pay roll, and to cut off his allowance seems almost as ruthless as dismissal without compensation.

Lump sum payment favored

SOME employers, in fact, faced with this situation, have continued the allowance from year to year, hoping vainly for a suitable opportunity to end the quasi-stipendiary relationship. True, the money received in a lump sum is likely to be spent before long, but in the meantime the jobless worker has broken the habit of calling at his former employer's pay window, and he is more likely to realize that he must find a new job or face the world with empty pockets. Moreover, a few hundred dollars in cash often enables a dismissed workman to move to a place where labor is in demand, or to make some other turn that will improve his prospects.

Employers differ as to the circumstances which they think justify the payment of dismissal compensation. In some companies it has been limited to lay-offs resulting from the permanent shutdown of plants. In others, it has been used when drastic reductions of force occasioned the dismissal of long-service employees. In still others, compensation has been paid to individual workers dropped from the rolls because of inability to learn new processes. On one railroad, in the case of men who have subscribed to a system of contributory insurance, dismissal compensation is paid even to those discharged for cause.

A complication sometimes arises when a man who has received dismissal compensation is later rehired at the same plant or at another plant of the same company. Some managers, facing this situation, have given the workman his choice between giving back the compensation and receiving credit for all his past service or retaining it and starting in as a new employee. If he elects to reimburse the company, he usually is allowed to do so on the installment plan.

It will have been noted that lay-off allowances of the kind here described have some points of resemblance to unemployment insurance. It may in fact be argued that dismissal compensation is a step toward privately supported unemployment insurance plans, func-

tioning for the benefit of employees of individual companies.

Thus far, however, the differences somewhat outweigh the resemblances between the two systems. Unemployment insurance is intended to supply partial support to the worker during periods of enforced idleness. When it is maintained in a single company it usually carries the inference that the beneficiary eventually will return to work.

Dismissal compensation, on the other hand, operates for the benefit of the man permanently laid off through causes for which the employer takes responsibility, and it is intended less as a means of support than as emergency relief, through which the recipient will have a chance to find a new job or adjust himself to a lower standard of living.

A new feature

INDEMNITY to laid-off employees is so new a feature of American industrial management that no effort has yet been made to find out the extent to which it has been adopted. Possibly a dozen or a score of nationally known corporations have definite schedules of payment, used habitually or in occasional emergencies. Doubtless many other companies make dismissal payments informally.

One large corporation in 1929 disbursed hundreds of thousands of dollars to employees of several shut-down plants, the individual payments ranging from \$125 to \$2,000. Business conditions in 1930, with "cyclical" unemployment superimposed upon the already prevalent "technological" variety, directed fresh attention to the subject, and experienced observers of personnel practices look for a rapid spread of the policy of compensating workmen who have to be dislodged from

their jobs through no faults of their own.

Responsibility is complex

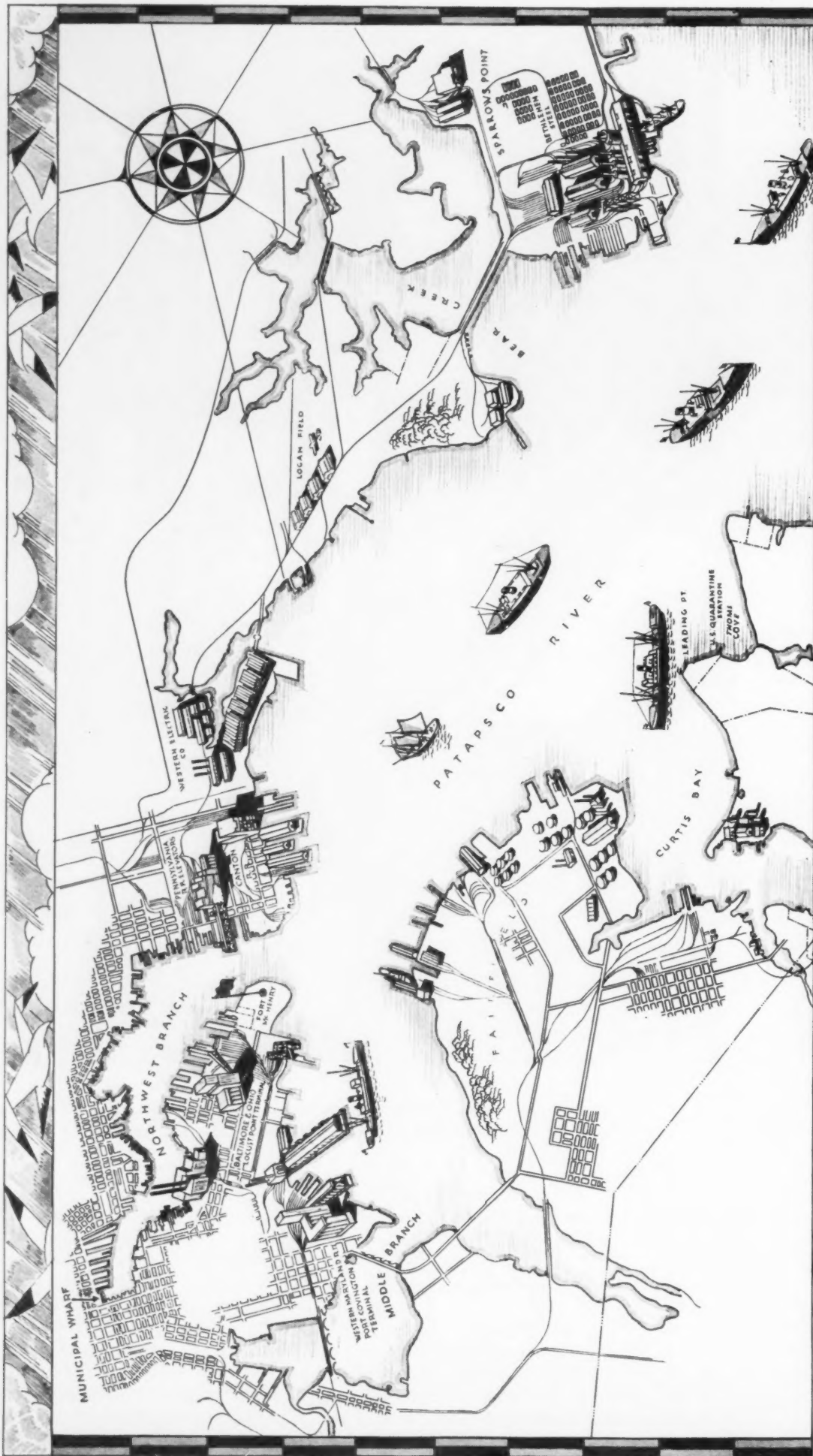
BUT why, precisely, in a period of business recession and reduced earnings, should managers disburse large sums of stockholders' money to dismissed workers who have already received their full wages? Search for an answer to this question takes us back

to labor stability and the increased permanence of the employment relation. It may be difficult to define the employer's responsibility toward his employees of long service—just as it is difficult to define the industrial pension responsibility—but that an obligation exists will scarcely be denied by an enlightened industrial manager. And for the manager who lacks enlightenment on this particular point, public opinion serves as

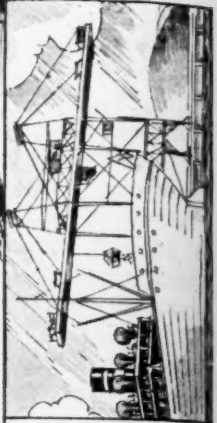
(Continued on page 212)

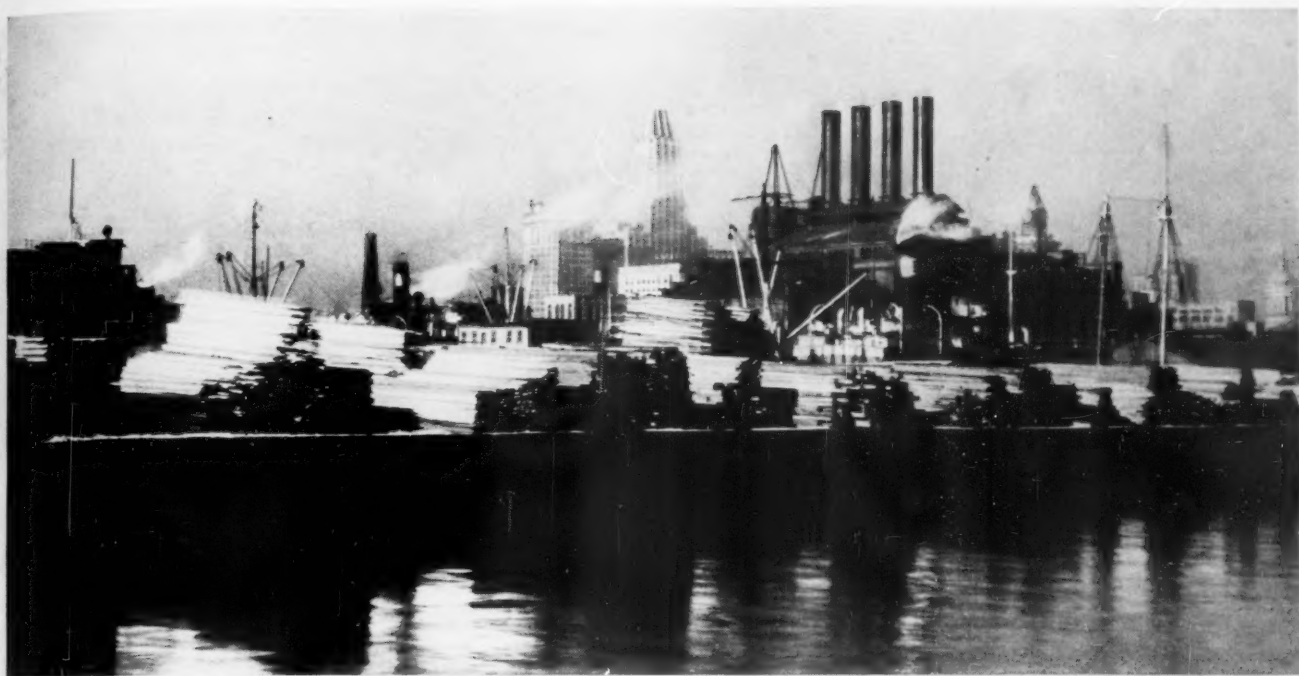


Is it less reasonable for the company to pay something for displaced labor than to pay overhead charges on idle machinery



PAST Fort McHenry, where Francis Scott Key wrote "The Star Spangled Banner," the vessels of 19 nations steam today taking advantage of Baltimore's harbor accommodations, which include a channel of 35 foot depth, modern piers, loading and warehousing facilities





Symbols of the transportation, industry and commerce of Baltimore are caught in this striking scene

EWING GALLOWAY, N. Y.

We Pay a Visit to Busy Baltimore

By PAUL McCREA

Associate Editor, Nation's Business

MORE than a century has passed since Francis Scott Key, detained aboard a British warship, watched "the rockets' red glare" which testified that our flag was still flying above Fort McHenry in Baltimore harbor.

Today, that flag is still there—and so are the flags of the British, Japanese, German, Scandinavian and other countries, because Baltimore now is one of the largest ports in this country and 19 maritime nations are represented in the fleets that steam past old Fort McHenry.

The old Fort has become a government park and sits peacefully like a pensioned veteran looking down on the port's activity. Tugs toot and bustle, warping steel freighters against concrete piers where overhead cranes wait to spill merchandise into their holds; donkey engines squeal as they drag street-car rails bumping from pier to hold; dredges gulp tons of ooze off the channel bottom that Baltimore's boast of a 35-foot depth at mean low water may nev-

er be open to argument.

The old Fort may dream of past glories, but Baltimore has little time for dreams. It studies maps showing that it is closer to the great industrial territory of the Middle West than any other of the five Atlantic Coast seaports. It compares railroad rates, studies its own industrial expansion and discusses the 50 million dollars authorized for harbor improvements to develop those advantages to the utmost.

A port to study shipping

BALTIMORE is proud of its port and eager to point out its excellence even to such nonshippers as members of the staff of NATION'S BUSINESS who recently toured the harbor under the enthusiastic guidance of F. I. Tanner, port traffic representative of the Export and

"WE need some first-hand knowledge of new ideas in shipping," said the editor.

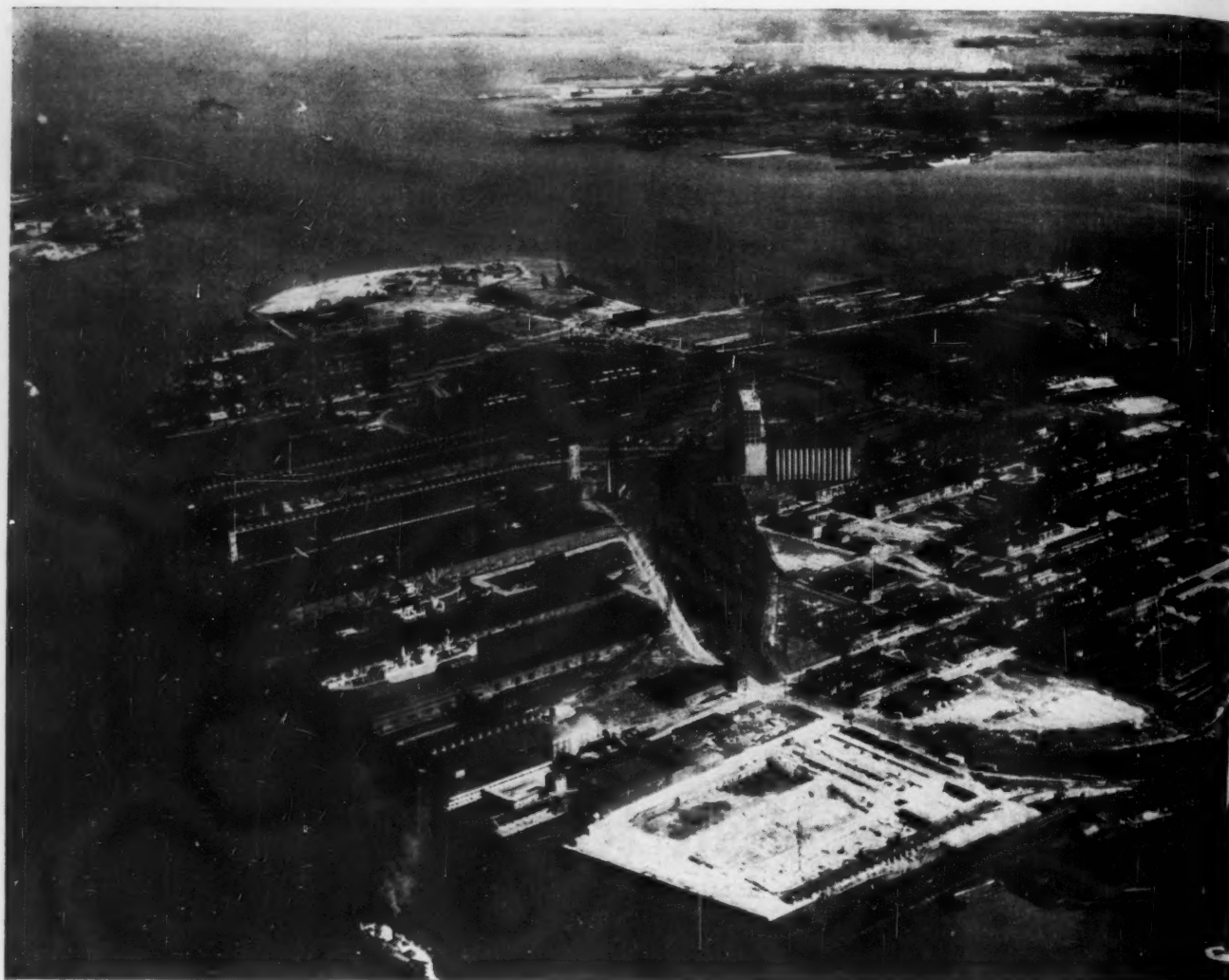
"Agreed," said the staff, "and a good place to get it would be Baltimore."

The staff went, saw, and returned marveling. For the modern port holds much of the romance of the commerce of our day

Import Bureau, Baltimore Association of Commerce.

The trip was arranged to give the staff members some practical, first-hand knowledge of shipping and warehousing. From it they carried away an impression of vast enterprise, a new familiarity with shipping problems and practices, and mild sunburns.

Since the facing chart offers a more understandable description of the port than can be set down in words, there is no point in going into detail here save to say that the harbor shoves



This aerial view shows the terminals of the Baltimore and Ohio Railroad at Baltimore, with a grain elevator at the right center and grain galleries leading to loading piers

its nose into the center of the city and a walk of only a block or so took us to one of the municipal piers and the harbor boat provided for the tour.

Channel goes to city's center

ALTHOUGH the government ship channel ends at Fort McHenry, municipal dredging has given the Northwest Branch a 35-foot depth. Ocean-going vessels, if so minded, may thus tie up almost in the heart of the city. We passed under the sterns of several and Mr. Tanner answered innumerable questions before our boat stopped at the Baltimore and Ohio Terminals, where no reasonable man could doubt the presence of 85,000 hides from the Argentine, the largest such cargo ever to come to Baltimore. The hides were being loaded aboard box cars, dwarfed by the immensity of the pier and the stacks of merchandise beside them. These commodities included sacked magnesite from Czechoslovakia, and crates and boxes of unidentified content.

At a nearby pier, the *Rockpool* was loading 94,000 bushels of wheat, destined to be delivered at Antwerp. It was going into the hold at the rate of 18,000 bushels an hour, and Mr. Tanner took us across to see how this was done.

From one of the upper galleries of the pier we watched the wheat streak past on wide conveyor belts which carried it from the elevator, 200 yards away, to pour it into a hopper and so down a pipe line into the ship's hold. From the gallery we went aboard the *Rockpool* to watch the wheat come hissing down. We observed how the hold was divided into sections by planking, which prevented the cargo from shifting after the vessel went to sea. There, too, we met Capt. J. R. Reid, skipper for Sir R. Ropner & Sons, Ltd., West Hartlepool, the vessel's owners, who extended us the hospitality of his ship.

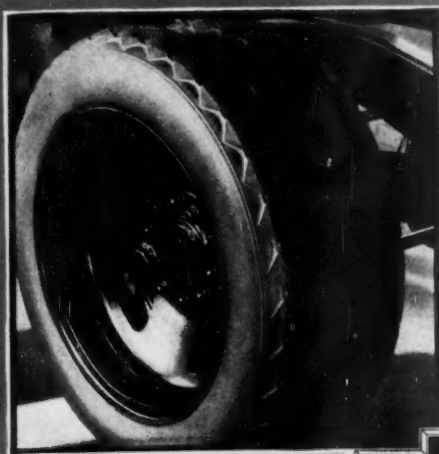
Back in our harbor boat, we traveled on down the channel, past the dry docks of the Bethlehem Shipbuilding Corporation, among the largest in the world, past Fort McHenry and around the

point to the fine new terminal of the Western Maryland Railway, to watch street-car rails being lowered into the hold of the *Miguel de Larrinaga*, out of Liverpool bound for Chile. The Western Maryland Terminal will, when completed, have four pier units with transit sheds and supporting warehouses. The first unit, the only one so far completed, has been built at a cost of \$8,500,000, and is the first construction under the \$50,000,000 Port Development Enabling Act, passed by the Maryland Legislature in 1920.

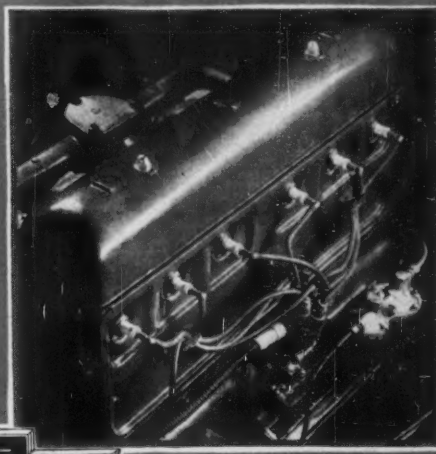
Designed for efficiency

THE completed facilities represent one of the most modern and efficient units on the American seaboard. They have been designed for expeditious and economic service to cargo and ships. There is a 1,000-foot retainer pier, with one-story transit shed, and two adjacent marginal wharves with two-story transit sheds. A two-story concrete

(Continued on page 210)



New Dual Wheels

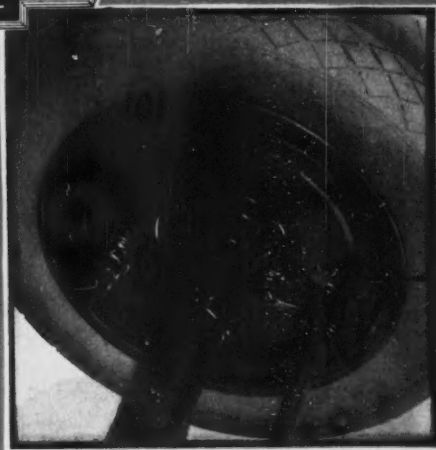


6-cylinder 50 h. p. Motor

CHEVROLET



New Rugged Rear Axle



New Fully Enclosed Brakes

IMPORTANT FEATURES OF THE NEW CHEVROLET TRUCK

To the business man who buys trucks, there are certain features in the new 1½-ton Chevrolet that recommend it *especially* for modern hauling.

Dual wheels, for instance, along with six truck-type cord tires are optional equipment at slight extra cost. The rear axle is larger, heavier and more durable. The 4-wheel brakes are bigger, and completely enclosed, front and rear. Chevrolet's

50-horsepower valve-in-head six-cylinder engine combines *modern* performance with unexcelled economy. In addition to these, the new heavy-duty truck clutch and the deeper, stronger frame are factors of outstanding importance to the modern truck user.

See your Chevrolet dealer, and arrange for a trial load demonstration of the new Chevrolet truck!

UTILITY 1½-TON CHASSIS

\$520

Dual Wheels \$25 Extra

Light Delivery Chassis...\$365

Light Delivery Chassis

with Cab.....\$470

(Pick-up box extra)

1½-Ton Chassis with Cab \$625

Roadster Delivery.....\$440

(Pick-up box extra)

Sedan Delivery.....\$595

All prices f. o. b. Flint, Michigan

CHEVROLET MOTOR COMPANY, DETROIT, MICHIGAN

Division of General Motors Corporation

CHEVROLET TRUCKS

When visiting a CHEVROLET dealer please mention Nation's Business

How Far Does the Drought Extend?

By WILLIAM BOYD CRAIG

Associate Editor, NATION'S BUSINESS

THE weather is no longer merely something to talk about. It is being forced to the attention of business men as a major factor in the economic well-being of the country. This year's drought is the reason. A disaster to the apple orchards of Virginia and to feed crops for dairy cows and poultry affects New York housewives, New England merchants and New Mexico ranchmen.

Nearly a third of the area of the United States suffered from continued lack of moisture this summer. Not only was it a dry summer, but a large part of the area affected had had low precipitation for more than a year.

The extent of the drought is indicated by the map. Much of the territory

drowned out in the Mississippi flood of 1927 has been burned out this year—more than a fair share of hard luck for one section.

What will it do?

THREE questions touch everybody's interest in the drought:

"What is its effect on agriculture?"

"What is it going to do to business?"

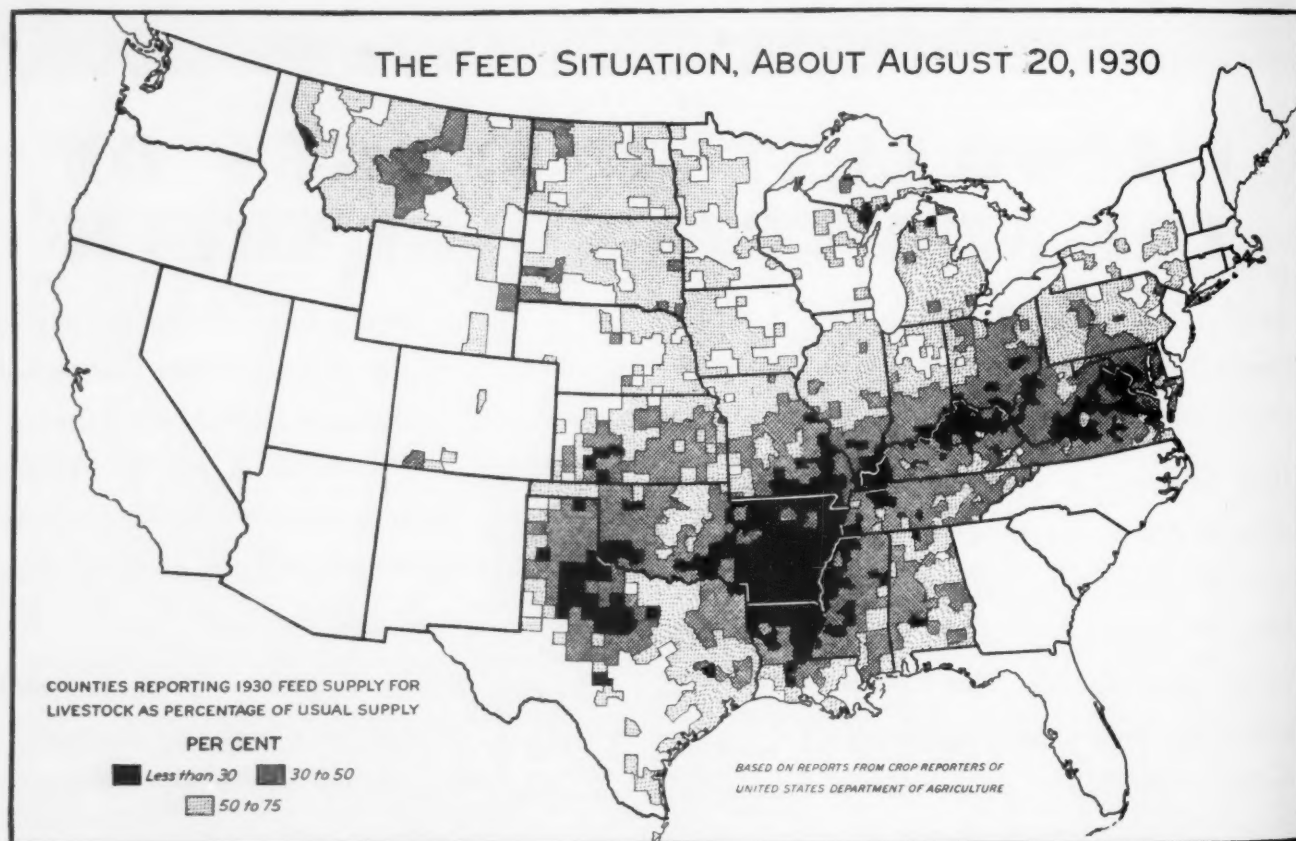
"How will it affect the consumer?"

In any discussion of these questions we must distinguish between the drought area itself and the country as a whole.

The immediate effect in the dry areas

★ THE actual rainless area is known, of course, but the effects of the drought are not limited to that area. They reach you, no matter what your business or locality. This study by Mr. Craig will help you understand what to expect and help you prepare to meet it

is a reduction in farm income and, therefore, in the farmer's purchasing power. The farmers in the drought areas will suffer a huge loss. From July 1 to August 7 the country's corn crop was cut about 700 million bushels, about 26 per cent below the average for ten



UNITED STATES BUREAU OF AGRICULTURAL ECONOMICS

As a result of the continuation of the drought, the feed situation in areas affected by it has become critical. Pastures, the poorest for 50 years on August 1, deteriorated still further by August 20. The feed supply is shorter than in any year since 1901

HOLOPHANE LIGHTING UNITS

give you more useful
illumination from your
Mazda Lamps



TRADE MARK

May we submit a "Planned
Lighting" layout for your
premises—the right Holophane
unit for each specific location—

HOLOPHANE COMPANY

NEW YORK · CHICAGO · SAN FRANCISCO · TORONTO
DISTRIBUTORS' DEPOTS IN OVER 100 CITIES

©1930 H. Co.

When writing to HOLOPHANE COMPANY please mention *Nation's Business*

years. The per cent of loss was greatest in Maryland, Virginia and the states bordering the Ohio and Mississippi Rivers from West Virginia to the Gulf. In these states the condition of corn on August 1 was about 40 per cent below the ten-year average. Hay, including alfalfa, was 36 per cent and pasture 34 per cent below the ten-year average.

700 counties seriously affected

IN THE counties that have suffered most, the crops are, of course, in a much more serious condition than the August 1 figures indicate. Only three of the twelve states in this region had more than one-half the normal rainfall in August. Two of them—West Virginia and Kentucky—had 50 per cent rainfall. The other six had less, ranging from 49 per cent in Illinois to 15 per cent in Arkansas. These areas represent a large section, as shown by the fact that up to September 1 the Secretary of Agriculture had designated nearly 700 counties as being so seriously affected as to warrant reduction in freight rates on emergency shipments of hay, feed and live stock.

These counties included in 1925 nearly 1,380,000 farms, three and a half million head of horses and mules, six and a half million cattle and about a million sheep and swine. They also included about 6,200,000 farm population, or 58 per cent of the total population in those states.

The average gross income in cash from the sale of crops in these states in the five-year period 1924-1928 was \$1,385,000,000, or 26 per cent of the cash-crop income of all farmers in the United States. The cash income of farmers from sale of both crops and live stock in these states was \$2,633,000,000, or nearly 27 per cent of the total for the country. This, of course, is not the measure of loss, but indicates that vast sums are involved in the destruction wrought by the drought.

These are only some of the high spots of the drought—enough to give a bird's-eye view.

The real problem in the drought areas is one of low farm income. With little to sell and prices of farm products thus far this season the lowest in years many farmers must go without the things they had planned to buy this fall and winter. It will be mighty hard to pay taxes, interest and principal of loans and other obligations. In spite of the greatest leniency foreclosures and bankruptcies are likely to increase.

On the other hand, the income and purchasing power of farmers in other

sections will be somewhat higher than if there had been no drought. The price of corn has gone up, and those who have it to sell are benefiting. So is it with hay and feeds. The price of dairy products has risen too, which helps the farmers of Wisconsin, New England, and other dairy sections outside the drought areas. But the increased price they get for their products isn't all clear gain.

The practical farmer who must consider cost as well as price has to reckon with the fact that the price of the other farmer's products is a part of his own costs. The higher price of corn affects the cattle feeder.

Part of the higher price the dairyman or commercial poultryman receives for his products goes to meet the higher costs of dairy and poultry feed resulting from the drought.

The effects of the drought will not end with the first good rain. For the most part it is too late to save this year's crops. Fields seeded for hay to be cut next year will not be what they would have been had this been a normal year.

Rain may save pastures

PLENTY of rain would, of course, revive pastures somewhat before winter, and there isn't a great deal of real winter in some parts of the drought area. Rain also would enable the farmer to seed rye, vetch and other pasture crops for fall and spring pasture.

All this is promising, but with the drought far from broken it is impossible to predict consequences with certainty. Farmers have been feeding their reserve hay and fodder hoping that good rains, revived grass and fast-growing crops would help them to save their live stock.

Thus far there has been no marked liquidation of live stock. At any rate, forced selling has not shown up in the markets. This is reassuring for the present, but gives no guarantee for the future. Shortage of feed and poor pasture may yet force liquidation of live stock in the drought areas, even to the point of weakening the breeding herds. If so, the after effects of the drought will hang on.

The effect of the drought on business is even more complicated than its effect on agriculture. Merchants depending largely on farmers for an outlet for their products are likely to find a lot of "sales resistance" in the drought areas. As yet, retail sales have held up comparatively well in the drought states, especially as indicated by chain-store sales. But these stores have many customers who are

not farmers and whose buying power is not at once affected seriously by present crop prospects.

Farmers in the fortunate areas where farm income may be increased because of the drought are likely to buy more. This is a bit of comfort to concerns doing business in both types of farm territory. But direct purchases by farmers are not the only relationship between agriculture and business. For instance, even if prices increase enough to give farmers in other sections enough greater income to make up for what the drought-stricken farmers are losing, it would not do to assume that on this account alone business in general would be exactly where it would have been if the drought hadn't come.

High prices may help business

DROUGHT losses in one section could be matched by "drought gains" in other sections only by a substantial increase in prices of food and of farm products used in industry.

An increase in food prices would leave so much less of the consumer's income for purchases of industrial products. This, however, doesn't mean that business won't pick up in spite of the drought. In fact, there is something cheerful in the theory that any increase in general prices caused by the drought would cause people to loosen up with their buying. As prices went up those who had been "sitting tight" would get in on the buying before prices went up even more. This would tend to stimulate business.

Some increase in the price of farm products is desirable and seems inevitable. Farmers are entitled to it. Even the price of wheat may be affected for various reasons. For one thing, wheat for live stock feed is now cheaper than corn. A bushel of wheat has about 12 per cent greater feed value than a bushel of corn, and the price of wheat is now 15 cents a bushel less than the price of corn.

Even if prices of farm products should increase greatly there is no reason to fear that the country's food supply really will be short. Vast farm areas have not been affected by the drought. Receipts of fruits and vegetables at the large markets have held up well. Reduction in receipts from the drought areas have been met by increased shipments from other sections, thanks to a well organized trade and an efficient transportation system. If the drought had ended about August 1 our fruit and vegetable crops would have been 10 to 15 per cent greater than

MAP to your business and discover new ways to save

USING the Multigraph is one thing . . . and using it for all it's worth is something else.

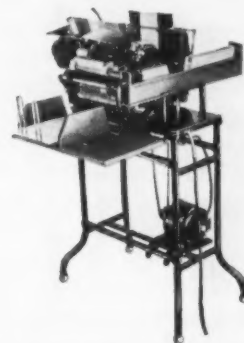
Many an organization which makes the Multigraph pay for itself each year as a direct mail unit neglects the opportunity for similar profit by using the Multigraph to print office forms. Others, who use the Multigraph for printing, could greatly enlarge the effectiveness of sales and advertising appropriations and other department budgets by applying the Multigraph to selective selling follow-up, collections, production records, or similar problems.

That's why we recommend to every executive a searching check-up of the Multigraph map of business—the map of places in which the Multigraph can serve you. Take your own organization chart; go over it section by section; list forms that could be printed on the Multigraph; it won't be unusual if you find the way to save enough to pay at least one clerk's salary . . . and it is not unprecedented to find savings that run into five figures.

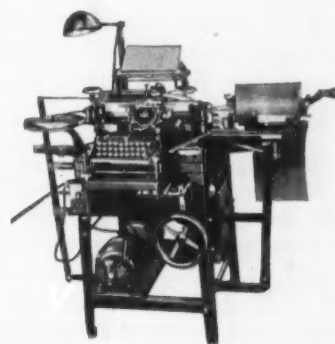
Whether or not you now use Multigraph equipment it will be worth your while to obtain the new bulletin-guide to Multigraph applications—"33 Ways in Which Money is Being Made or Saved by Multigraph Equipment." You can get it from the Multigraph representative listed in your telephone book. Or we will send it direct.

THE AMERICAN MULTIGRAPH SALES COMPANY
1806 East 40th Street Cleveland, Ohio

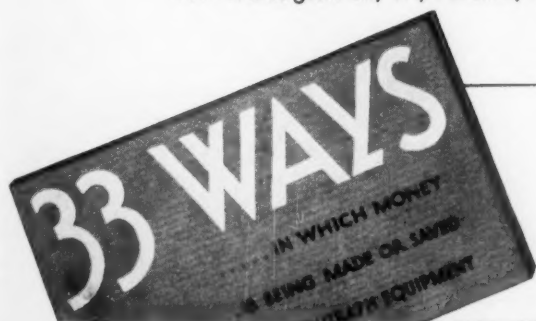
THE MULTIGRAPH SALES COMPANY, LIMITED
137 Wellington St., W., Toronto, Ontario



The Addressing Multigraph: Writes a letter, adds "fill-in" and salutation in same type from same ribbon (an exact match), signs the letter, and addresses the envelope all at one revolution of the drum.



The Multigraph Comptotype, either in your own office or through the service made available by Multigraph district offices, gives you the advantage of convenience and economy assured by the embossed strip method of composition for letters and address plates.



American Multigraph Sales Company
1806 East 40th Street
Cleveland, O.

Please mail copy of "33 Ways" to

Name
Business
Address
City State

last year, largely because of increased acreage this season.

Prices of some fruits and vegetables went up with the drought partly because of seasonal factors, but had a long way to go before reaching the price level of a year earlier.

The stories about "profiteering" were mostly bunk.

The wheat crop was "made" before the drought. Most of it is grown outside the drought area. This year it is of excellent milling quality.

The Government took prompt action to help the drought-stricken areas. In the middle of August President Hoover called the governors of Missouri, Illinois, Indiana, Ohio, West Virginia, Montana, Nebraska, Iowa, Kansas, Arkansas and Tennessee to meet with federal agricultural officials. As a result of this conference national, state and local machinery was set up to deal with the situation.

Several governors formed state committees on which served agricultural officials, bankers, railway representatives, farmers and Red Cross officials. The President named a national committee. County committees complete the organization.

In this way the problems are localized so far as possible. The county committees call on state and national agencies when outside aid is imperative. The Red Cross as an initial allocation set aside five million dollars to meet extreme needs.

Railroad rates are helping

UNDER a special permit of the Interstate Commerce Commission August 9, the railroads east of the Mississippi River reduced rates one-half and the western roads one-third on emergency shipments of hay and feed toward the drought counties and a similar amount on live stock moving outward. The Department of Agriculture is acting as a research and information agency in getting up-to-date information on crop and pasture conditions, availability of feed and hay, live stock movements and market prices. Early allotment of road contracts in the dry areas under federal appropriations is being made to increase employment.

Near the end of August financial leaders met in Washington with federal officials to consider ways of obtaining financial relief for the sections affected. It was the consensus that the primary duty rests with the local banker and other local agencies. The Federal Government has no funds available for direct loans to farmers, except about

\$800,000 of the last seed loan appropriation. Under the law this can be used only in a few of the drought states to purchase seed for pasture crops and such other fast-growing crops as will become available in 1930.

Other considerations contained in the report of the financial leaders were:

The local banker should offer for rediscount such eligible paper as he may have or can make to the Federal Reserve Bank or the Intermediate Credit Bank operating in his territory.

Existing agricultural credit corporations should utilize their full available lines of rediscount with the intermediate credit banks.

Where no agricultural credit corporations exist and where other credit facilities are not available, we urge bankers, business men and farmers to proceed at once to form agricultural credit corporations. Such corporations can perform a great service in aiding farmers and bankers in affording long-term loans.

Existing cooperative marketing associations should avail themselves of the liberal financial assistance which is offered by the Federal Farm Board.

The opinion is expressed in the report that:

Existing banking institutions in the states represented have ample funds to care for all legitimate and solvent credit requirements.

The one new federal concession growing out of the conference was the promise of Roy A. Young, then governor of the Federal Reserve Board, that reserve banks would deal leniently with member banks in the drought-stricken region.

However, he rejected a suggestion that the reserve banks give preferential rates to member banks on agricultural paper in the drought area.

Thoughtful economists feel that, in spite of all governmental attempts at

credit help, many banks throughout the drought areas are going to find hard sledding through the winter months.

When full credit has been given for drought relief the biggest hero in the real work done no doubt will be Mr. Local Enterprise. His rôle has been pretty well emphasized at the various White House conferences.

A plea for self-help

DOWN in Oklahoma the Director of Agricultural Extension, D. P. Trent, issued on August 23 a stirring plea for community spirit to give local self-help a running start:

There is danger that many people may be stampeded to seek easy loans of federal money at low rates of interest on a promise to pay it back in one or two years and not do what ought to be done toward helping ourselves in solving our own problems.

It would be unfortunate if Oklahoma should too strenuously urge and take advantage of outside aid out of proportion to the seriousness of our situation. It would be calamitous to have our people further mortgage the future without first doing everything humanly possible to meet their own needs and avoid further debt. It would be pitiful if many of our people should sit down and wait for the Federal Government and the Red Cross to carry them through.

Let's start a revival of fall gardens, fall and winter pastures, canning of meats and other foods, preservation and conservation of feed, utilization of opportunities for labor, culling out of live stock that would not be profitable to carry through on bought feed, saving of the good breeding stock on the farms, cooperation in aiding our neighboring counties and our neighboring farmers in meeting their situation, and such other means as may be discovered for helping our own situation if we will only look about us and make a careful study. This is our first job, and may it be done to the honor and credit of Oklahoma.

The Romance of Banking

JAMES B. FORGAN, while president of the First National Bank of Chicago, made it a rule to give wise and inspiring advice to every boy and young man who went to work for that famous financial institution. In giving such counsel he usually said something like this:

"Start out with the determination to be a banker. That means being a constructive thinker and developing your imagination. Never forget that the figures you deal in are not merely

figures. They are pictures, pictures of houses, of parcels of land, of great corporations, of victories won in trade by big brains, of thrilling adventures of men of courage and far-reaching vision in the fields of business, manufacturing and promoting.

"You have romance forever dripping from your pen points. Resolve to saturate yourself in the spirit of that romance and to become powerful figures in the banking drama."

—JAMES HAY, JR.

"Emphasis on packaging efficiency pays high dividends"

says

MORTIMER B. FULLER
PRESIDENT, INTERNATIONAL SALT CO.

"Efficiency in packaging is one of the most important factors for business survival today. Packaging waste and mistakes multiply quickly and easily jeopardize profits. Emphasis on packaging efficiency pays high dividends. We use Pneumatic Machines as the most efficient method of handling our packaging operations."



As Mr. Mortimer B. Fuller of the International Salt Company points out, one of the easiest places to lose profits, and a logical place to gain them is in your packaging operations. Easy to lose because packaging mistakes are quickly multiplied. A slight waste, slight overweight per package or container mounts quickly into large figures.

America's largest producers quickly found that packaging efficiency pays big dividends. The great majority of them, like the International Salt Company, emphasize packaging accuracy, economy and efficiency through the use of Pneumatic Machines.

Perhaps we can show you the way to new profits through greater efficiency in your packaging operations. Our engineers are at your service free of charge. The Pneumatic System of Packaging Machinery is built on the basis of unit design that makes them equally adaptable for any manufacturer large or small.

Send for the new packaging booklet, "An Interview"—a story of service to America's leaders in mass production.

PNEUMATIC MACHINES

Carton Feeders
Bottom Sealers
Lining Machines
Weighing Machines
(Net and Gross)
Top Sealers
Wrapping Machines
(Tight and Wax)

Capping Machines
Labeling Machines
Vacuum Filling Machines
(for liquids or semi-liquids)
Automatic Capping Machines
Automatic Cap Feeding Machines
Tea Ball Machines

PNEUMATIC SCALE PACKAGING MACHINERY

PNEUMATIC SCALE CORP., LTD., NORFOLK DOWNS, MASS.
Branch offices in New York, 26 Cortland St.; Chicago, 360 North Michigan Ave.;
San Francisco, 320 Market St.; Melbourne, Victoria; Sydney, N. S. W. and
London, England

Solving World Highway Problems

By JAMES W. BROOKS

Director, American Highway Educational Bureau



Albert Mahieu, president of the Congress

AN AMERICAN highway engineer sat in a conference of unfamiliar tongues in a South American city some time ago and "dumbly wondered," as he expressed it, whether the meeting could accomplish any worth-while results in the face of the linguistic barriers which surrounded it.

As the proceedings went forward in Portuguese and Spanish, however, he sensed an earnestness and fervor of speech which soon convinced him that the subject of highway transport, under the impelling influence of the automobile, was crossing international boundary lines and that the problems of finance, construction, maintenance, regulation and administration of public highways were becoming international in scope.

To consider these problems, delegates from 62 nations, colonies and dependencies and the League of Nations will attend the Sixth International Road Congress in Washington, D. C., beginning October 6 and closing October 11. The Congress will be held in two sections, with three main questions allocated to each section.

The first section will consider questions regarding the results obtained by the use of cement, brick or other paving, the use of tar, bitumen and asphalt in road construction and the construction of roads in new countries, such as colonies and undeveloped regions.

★ **DELEGATES** from 62 countries will gather in Washington this month to consider the manifold problems of highway transport.

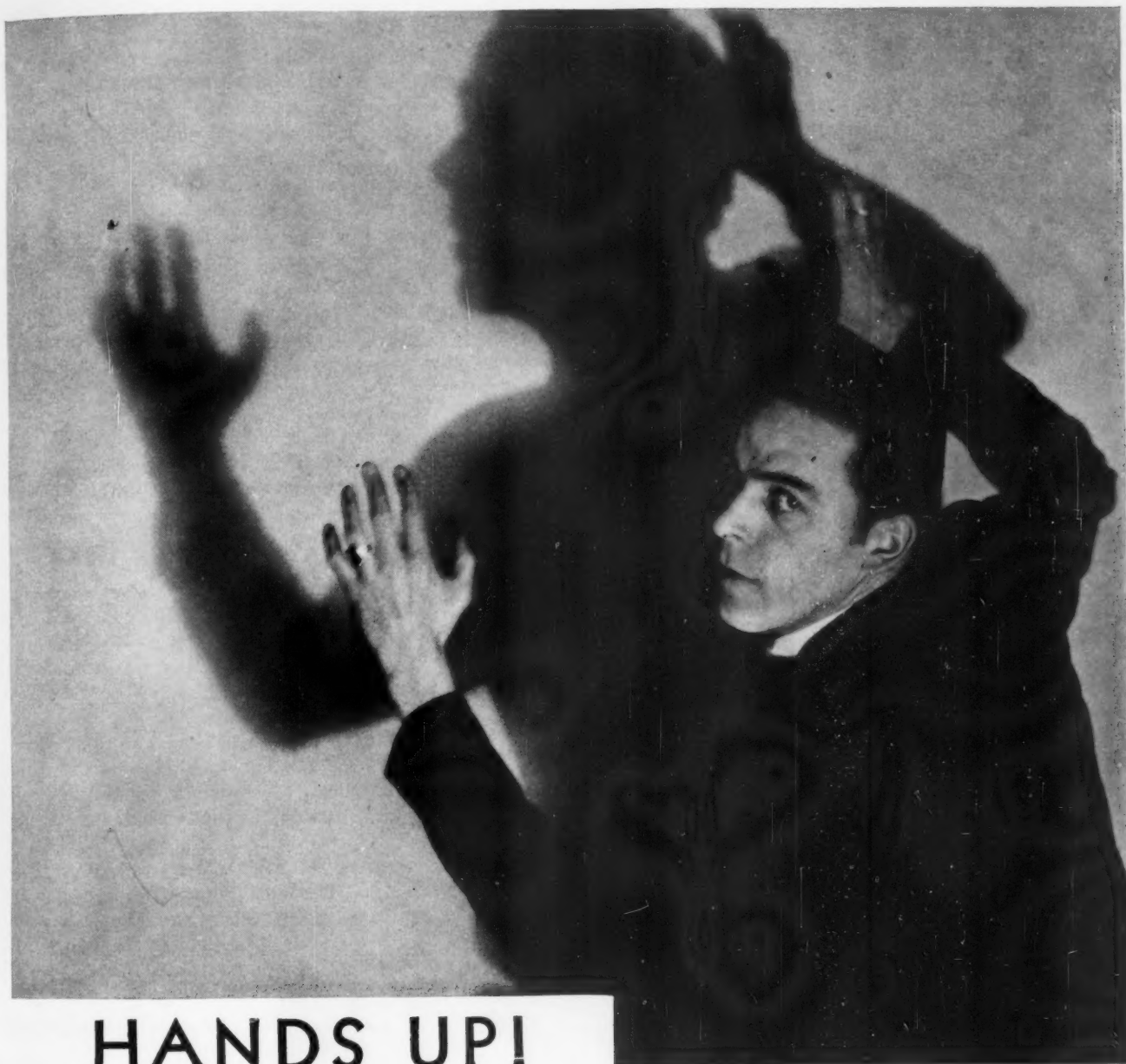
The sixth such meeting to be held, it is one of the significant features of this new day of industrial cooperation in which we live



Paul le Gavrian, secretary general

Ways of financing highways, the coördination of highway transport with other forms of communication, the regulation of traffic in large cities and their suburbs and the parking and garaging of vehicles will come before the second section.

Four languages—French, Spanish, English and German—have been adopted as the official mediums of expression. For the convenience of foreign delegates, all reports to the Congress will be interpreted simultaneously in these four languages and transmitted by microphone and earphone to the delegates



HANDS UP!

This payroll thief has never been convicted

ARE YOU being held up by the greatest payroll thief of them all — human hands? Are you one of the many manufacturers whose production is retarded, whose profits are reduced by excessive waste of time and material caused by slow, costly hand operations?

Special Production Machines will build machines for you to eliminate costly hand operations, to speed your production, cut down costs, increase profits — outstrip competition. We have done these very things in a number of plants in diversified industries. In some of these plants our work has included the speeding of existing machinery and re-designing of semi-automatic machinery to make it completely automatic.

We shall be glad to explain to you in detail, the story of Special Production Machines, how it operates, what it has done, and how it can help you. Write to the Special Production Machines Company, Norfolk Downs, Mass.

Special PRODUCTION MACHINES

A Division of PNEUMATIC SCALE CORPORATION, LIMITED

For over 35 years Pneumatic Scale Corporation, Limited has manufactured automatic labor-saving machinery for many of the world's largest producers of merchandise.

and the others who will be attending sessions of the Congress.

The exact title of the meeting is the Sixth Session of the Permanent Association of International Road Congresses. The Association's headquarters are maintained at 1 Avenue d'Ilena, Paris, France, with M. Albert Mahieu, member of the French Senate, as president, and M. Paul le Gavrian, secretary general. Its membership numbers about 2,000 and its primary function is to act as a central agency to distribute the results of research and experience in all phases of highway use.

Library on highways is opened

FIVE of these International Highway Congresses have been held in Europe—in Paris in 1908, in Brussels in 1910, in London in 1913, in Seville in 1923, and in Milan in 1926.

Coincident with the assembly of the Sixth Congress, a highway library containing the latest works on various phases of transportation has been organized by the Highway Education Board and thrown open for the use of engineers, economists, and others interested in highway transportation and related questions. A special feature will be the Latin-American section, where books and magazines in both Spanish and Portuguese will be at the disposal of visitors and highway transport students from Central and South America.

Arrangements for the Congress have been in the hands of an American organizing commission, appointed by Secretary of State Stimson. The president of this commission is Roy D. Chapin, chairman of the highway committee of the National Automobile Chamber of Commerce, with Thomas H. MacDonald, Chief of the U. S. Bureau of Public Roads, as secretary general.

Others delegated by Secretary Stimson to assist in the arrangements for the Congress are Wilbur J. Carr, assistant secretary of state; A. J. Brosseau, vice president of the Chamber of Commerce of the United States; H. H. Rice, member of the Highway Education Board; Robert Hooper, American Automobile Association; H. G. Shirley, member of the executive committee of the American Association of State Highway Officials; Thomas R. Taylor, assistant director, Bureau of Foreign and Domestic Commerce, Department of Commerce, and Charles M. Upham, engineer executive of the American Road Builders' Association.

An honorary committee headed by President Hoover includes all members of the Cabinet and the chairmen of the Foreign Relations and Roads Committees in both houses of Congress.

The first full session will be held in Constitution Hall Monday afternoon, October 6. To this the public has been invited.

All other sessions will convene in the auditorium of the Chamber of Commerce of the United States.



Roy D. Chapin



Thomas H. MacDonald

Owing to the world character of the Congress, the proceedings will be broadcast, by press and leaflet, throughout the two hemispheres into which the automobile is carrying the message, now so well demonstrated in the United States that modern highways and the motor car lead not only to material progress, but to a better understanding between peoples.

A road exposition and three great tours will supplement the official program of the Congress.

The road exposition, under the auspices of the American Road Builders' Association, will be held in the Washington Auditorium, where facilities for the actual demonstration of machinery will be provided. Mechanical power as applied to modern highway construction is responsible for much of the progress made in the United States and delegates to the Congress will have an opportunity to view the latest road-building appliances.

The tours will be distinct from the Congress, but the organizing commission expects many of the delegates to take advantage of the opportunities they will provide to inspect various types of highways and methods of construction.

The Highway Education Board, through the organizing commission, has announced that those accepting the invitation for the tours will be guests of the Board for all purposes of food and lodging, transportation and entertainment for nearly three weeks.

The tours are designed to take delegates through those regions of the United States which correspond in latitude to their home countries. The eastern group will proceed as far as Boston, the southeastern will penetrate to Florida, while the third tour will go as far west as Des Moines, Iowa, and Minneapolis, Minn. The three groups will converge at Detroit where the delegates will be the guests of the automotive industry for four days.

Tours are simultaneous

THE tours will be held simultaneously under the general direction of H. H. Rice, chairman of the committee on arrangements. Walton Schmidt will manage the eastern trip while the southern tour will be under Norman C. Damon and the western under Stephen James.

The American Automobile Association, at the request of the organizing commission, has also arranged a series of tours for the visitors and their families. These tours will take the visitors into the chief scenic sections

of the country, the principal cities and vacation resorts. The itineraries are calculated to give the visitors an accurate picture of the best features of the United States. These tours will be given at cost to those who desire them.

Thus the parliamentary machinery is set for what promises to be one of the most significant highway meetings ever held.

IS

E

IS LIGHT IN YOUR ESTABLISHMENT GOOD . . . OR POOR?



*MAZDA—
the mark of a research service

GOOD LIGHT from Edison MAZDA* Lamps will help your employees to do their work speedily and accurately.

Poor light retards work, and is responsible for many mistakes. If your subordinates are compelled to strain their eyes because of improper lighting arrangements, they are likely to have headaches or be seriously affected in other ways, *at your expense.*

Edison MAZDA Lamps are made of the finest materials and with utmost precision. They have the high quality that assures *full value of the current consumed.*

Examine the lighting conditions under which your employees work, then write the Engineering Department, Edison Lamp Works of General Electric, Nela Park, Cleveland, O., and we shall be glad to send you free bulletins concerning proper illumination in your particular kind of business.

EDISON MAZDA LAMPS

GENERAL ELECTRIC

When writing to EDISON LAMP WORKS OF GENERAL ELECTRIC please mention Nation's Business

Hobbled Hands—

The "Halitosis" of the Brake-lining Man



*He doesn't know he
has it, but you suffer
just the same.*

MANY a brake-lining man is suffering from a complaint which he himself doesn't know about. His hands are hobbled.

It is like this:

The average motorist asks for a price on having his brakes relined. The service man does not want to cut the price of his labor, yet he does want to make his quotation as low as possible so as to get the job. The only thing he can do is to use a lining which costs a little less.

Now notice the result. The labor required to put on the worst lining is just as great as to put on the best. But if the poor lining lasts only half as long—as is often the case—the motorist gets only half as much benefit out of the labor he pays for. In other words, he has hired a workman who is as badly handicapped as though his hands were hobbled.

The only way to make sure that you are getting full value out of the brake-relining labor you pay for is to see to it that your man is using the best linings.

No one realizes this more clearly than the men to whom braking efficiency and economy are most important—the largest operators of fleets of busses and trucks. They use Ferodo Brake Linings, even though these linings cost them a little more per foot. You, too, will find it pays to use Ferodo Linings.

FERODO AND ASBESTOS INCORPORATED

Manufacturers of Ferodo Bonded Asbestos Brake Lining in rolls, Ferodo Pat. Die-Pressed Brake Segments, Ferodo M-R Lining and Ferodo M-R Brake Blocks.

Factory and General Offices: New Brunswick, New Jersey



When writing to FERODO AND ASBESTOS INCORPORATED please mention Nation's Business

Publicity Has Its Perils in China

AN AMERICAN publisher in Shanghai, about a dozen years ago, conceived the idea of publishing a book of biographies of prominent Chinese, otherwise a sort of oriental "who's who."

He had a difficult time in getting the thing started because the Chinese, naturally exclusive, did not fancy having their entire lives exposed in the pages of a book.

But the publisher persevered and finally succeeded through enlisting the services of an official in the old Peking Government who had access to the official archives where biographies were kept on file, that is the biographies of those in official life.

Bankers shunned his pages

WITH this as a start, the book grew until now it contains a fairly complete list of the leading Chinese officials, professional men and business men, the publisher merely mailing out blank forms for fresh information when he revises his book.

He never has had any success in getting the Chinese bankers' biographies into his book, however. Unitedly they have resisted all his efforts to obtain sketches of their lives.

In desperation, he finally went to a prominent Chinese banker and asked him pointedly why it was that he and his fellow bankers had steadfastly refused to give their records for insertion in the publication.

The answer which he received was significant.

Live in fear of kidnapers

"IF CHINESE bankers put their names and biographies into your book," the oriental financier informed him, "they would immediately become the victims of kidnapers. You can't expect them to contribute to their own undoings."

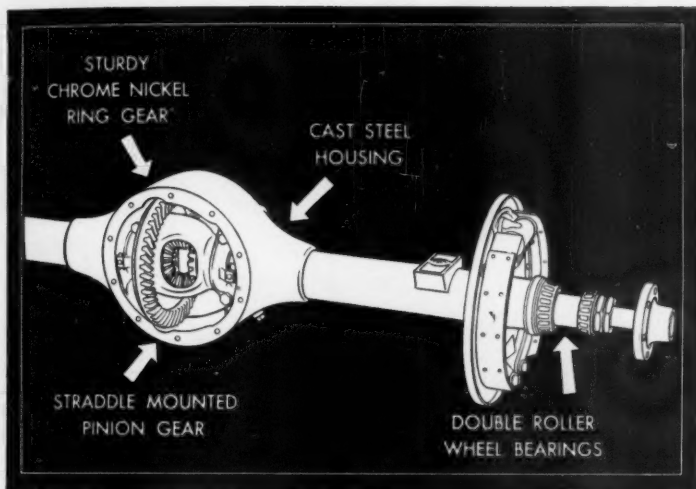
The publisher gave up in despair. It wasn't necessary for his informant to add that the kidnaping of wealthy Chinese is a leading enterprise in practically all large Chinese cities and that sometimes government officials are suspected of being in league with the kidnaping gangs, as such activities provide an easy way of raising funds.

J. B. POWELL

Compare .. *the full-floating axle*

of the new

1½ ton



For proof of the superiority of this modern full-floating rear axle, compare it with other types. Know that such costly design insures greater dependability . . . Weight of truck and load is carried on housings...Axle shafts are free to transmit power solely—and may be quickly replaced on the road without removal of wheels or use of jack. » » » See your Dodge Brothers dealer. See, inspect and compare the full-floating axle in the new 1½ ton Dodge Truck. Compare, too, the 48-horse-power motor, internal hydraulic brakes, 4-speed transmission and many other noteworthy features.

DODGE
TRUCK
\$595

F. O. B. DETROIT . . . DUAL REAR WHEELS AT SLIGHT EXTRA COST

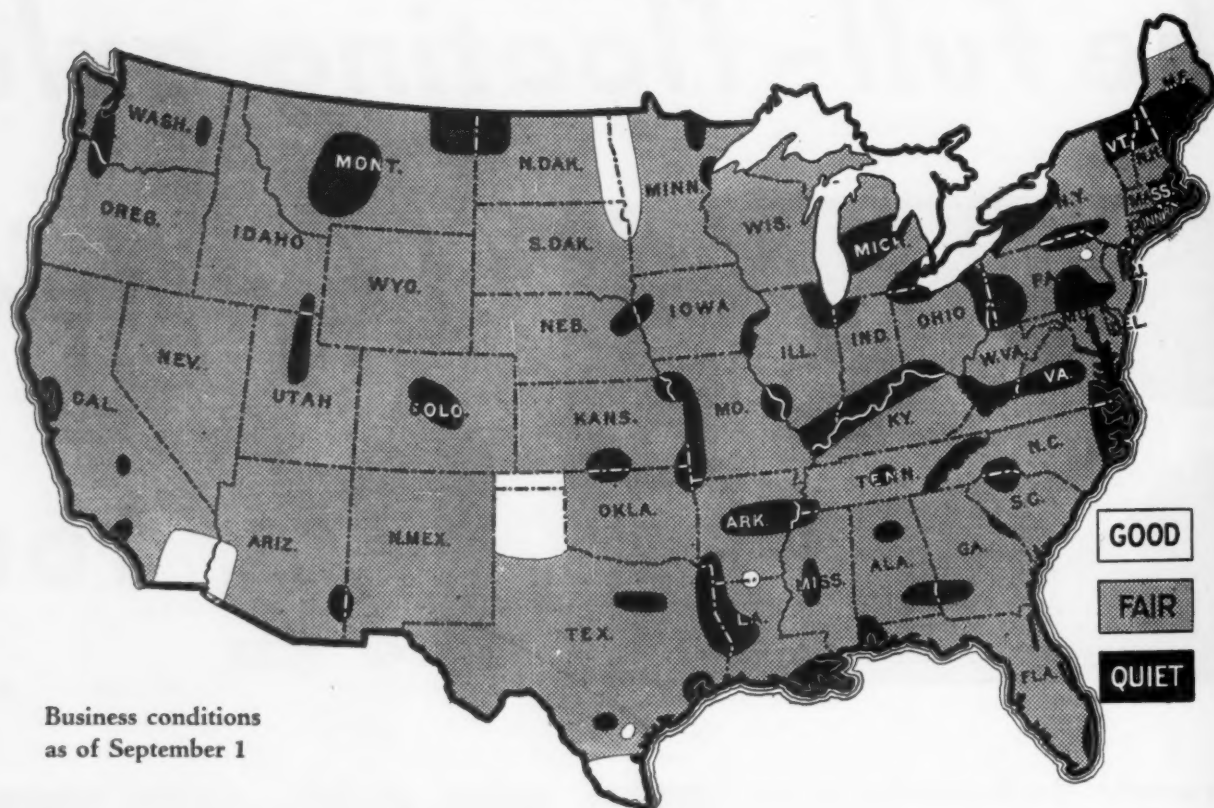
THE COMPLETE LINE OF DODGE TRUCKS RANGES IN CAPACITIES FROM 1000 POUNDS TO 11,800 POUNDS

When visiting a DODGE dealer please mention Nation's Business

The Map of the Nation's Business

By FRANK GREENE

Managing Editor, Bradstreet's



Business conditions
as of September 1

THINGS in a tradeway turned for the better in the latter half of August and, although developments, largely speaking, seemed mainly seasonal, there was evidence in some lines that starved stocks of goods were being replenished. Industry seemed to lead the way with accessions nearly everywhere to working forces or to numbers of days worked, all this indicating that wholesale buying was finding registration in a slightly faster pace of industry.

Nevertheless the inertia earlier had been so great that August measures of movement seemed disposed to vie with July for the doubtful honor of "scraping the bottom" hardest. As described by several observers there was "nothing to write home about" in the showings made in August except that there seemed abundant evidence that prices of both raw materials and manufactured goods were low enough and the seasonal buy-

TRADE in general brightened up the latter half of August, and though it seemed mainly seasonal, there was some evidence that depleted stocks of goods were being replenished. A railroad building boom brought an increase of business activity in the Texas-Oklahoma Panhandle

ing urge was strong enough to waken trade from its lethargy and induce the covering of many requirements.

Some of the other developments of the month were a rise of about a point in bond averages, this aided by the cheapness of money, while stock average despite the "drought dip" early in August did not quite hit the low of June. Industrials fared better than did rails which naturally reflect in some areas the prospects of reduced tonnage to be carried, because fading in crop conditions in August resulting from the

drought is only partially relieved.

Perhaps the most interesting feature of the month, however, was the stiffening up of farm product prices as a whole to a point where they practically balanced the new low levels set up by a few important staples like sugar, coffee, copper, cotton and cotton goods, leather, cotton seed and rubber. In this respect, indeed, there came to pass

some of the possible effects outlined in this column the month previously. That is, the loss in crop yields was perhaps serious enough to check the year-long seepage of strength in the general price commodity situation. In this connection a point worth noting was that wheat exports in July and wheat and cotton exports in August gained 30 and 35 per cent respectively, revealing an awakening of export buying, the weakness of which in the past two years had caused concern as foreshadowing the reactionary movements in our general export trade.

Finally it may be said that in a number of products prices are now so low as not to be any longer treated with indifference by buyers because the history of past depressions has been that low commodity prices have contained within themselves the germ of future enlarged buying and subsequent more prosperous trade.

As the result of ebb and flow movements within the groups and changing advices as to crop yields, prices of commodities apparently reached a dead center September 1. After ten successive price declines, the September 1 index showed only a drop of one-fifth of one per cent; the number of groups gaining or losing balanced exactly and the number of individual commodities gaining or losing was almost identical.

Some of the notable advances included corn which rose ten cents a bushel in August whereas wheat declined slightly taking the month as a whole, dropping ten cents between the August 8 high and the August 30 low. Corn prices advanced for nearly every month's delivery but still did not reach the level of a year ago. Wheat dropped to the lowest since 1914 and, if a few quotations in that year are excepted, they were down in early September to the lowest since 1907.

Raw cotton fell to 11 cents at New York, the lowest price since 1921. This low price of cotton and the accompanying decline in the new crop prices for tobacco were regarded as especially serious at the South.

Sugar hits new low

COPPER joined cotton on an 11 cent basis, sugar made a new low for all time and cattle, hogs and lambs made noteworthy declines from earlier in the year, cattle and lambs dropping 36 and 38 per cent respectively from January 1 but rallying with hogs later in the month.

Raw cotton advanced sharply for a while after reaching 11 cents at which point it was 40 per cent below a year ago. In its advance it apparently started a cotton goods buying movement, the gain in these being shared in by rayon and silk goods. In fact, it is easy to understand that these prices went low

enough to be tempting to early fall buyers who seem to have bought at least seasonally of these goods.

Early September saw new low prices recorded for coffee and rubber but, as these were not of domestic production, they attracted less attention than did some other price movements.

A review of the buying movement which began in mid-August reveals better takings of some kinds of steel, the gains already noted in textiles, a slight improvement in lumber buying, a better demand for anthracite and bituminous coal in the larger sizes and good buying of paint and painting materials. These latter trades, historically speaking, seem to liven up when new building is slack.

Steel prices are uneven

THE movement of prices was uneven within the steel trade in that finished materials especially used in the automobile trade eased off in price for a while although steel scrap strengthened perceptibly. Importance is attached to

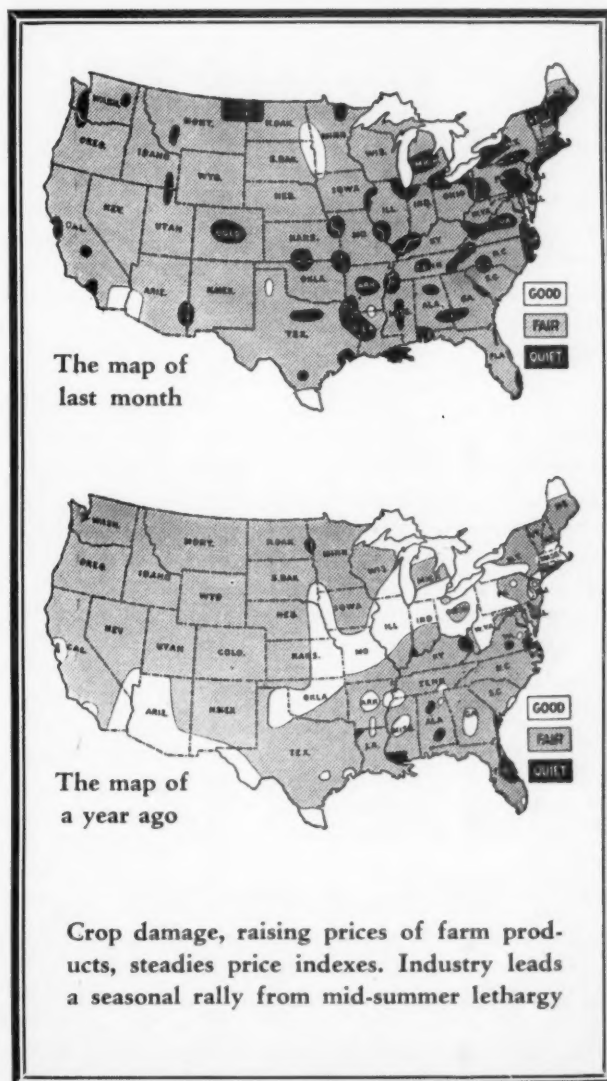
the latter feature because it is often esteemed a barometer indication. A review of the summer's happenings must include knowledge that vacation spending this year did not seem to be on a par with recently preceding years, this including seashore as well as mountain vacation spending. Tourist traffic also seemed to taper off a little from earlier years.

The showings made in July and August in some leading lines in which comparison is possible reveal that August, traditionally a dull month, lived up fairly well to its reputation this year despite the concededly more active appearance of things late in the month. Stock and bond sales and bank clearings and bank debits in August were below those of July and, except for bonds, the percentages of shrinkage from the like month a year ago were heavier in August than in July. So in what few industrial measures are available at the time of writing as, for instance, pig iron production, preliminary building permit values, and automobile production, the aggregates for August were below those of July and the percentages of decrease from a year ago were heavier in the eighth than in the seventh month.

Stock sales off

WHAT returns are in for August show a decrease of 34 per cent in bonds dealt in on the New York Exchange while stock sales fell off 58 per cent. These reduced financial movements are partially reflected in declines in bank clearings of 34 per cent and in bank debits of 36 per cent from a year ago. These latter percentages of decline have not been equalled since 1921. Municipal bonds, reflecting a great deal of advanced public work, showed a gain of 18.6 per cent and, for the eight months, of 10.9 per cent over a year ago. The increase in failures over last year was rather smaller in August than in July—20.7 as against 22.9 per cent—but liabilities increased 60 per cent over July, 1929.

For the eight months failures were 19.5 per cent and liabilities 38.7 per cent greater than a year ago and exceeded all previous years for that period. Among the industries, pig iron production dropped



32.7 per cent for August and 19.7 per cent for the eight months, automobile production fell 53 per cent for August and 36 per cent for the eight months and lake iron ore shipments were off 23.6 per cent and 25.5 per cent respectively. Building (preliminary figures) was 11 per cent below July and 30 per cent below August a year ago. Later returns may modify this showing because New York, which had a large total in July showed a marked shrinkage in August.

With New York excluded, the showing is rather better and a gain even may be recorded in August over July, but a

considerable decrease from August a year ago seems assured.

An interesting feature in the industrial line is that takings by mills of raw silk were larger in August than in July and much larger than June but the decline from a year ago for August is 30 per cent and for eight months is 15 per cent. The car loading exhibit of late, reflecting new crop movement, has been better than in earlier months but four weeks loadings in August showed a drop of 16.9 per cent from a year ago and the decrease for eight months is 11 per cent. The point seems to be that while car loadings gained over July, the

totals of loadings reveal a descending scale of percentages when compared with last year.

Early returns as to retail sales in August are, at the time of writing, rather inadequate but they point to a smaller aggregate than in July which is natural enough. Chain store sales dropped 5.1 per cent from August a year ago. Department store sales for August were 11 per cent below the same month a year ago and the decrease for eight months is six per cent.

The key position occupied by the domestic crop situation and its effect on prices are illustrated by the sharply diverging price movements that have been shown in recent months. Latest estimates point to a gain of about four per cent in the world's wheat crop over a year ago. This, with the heavy carry-over hitherto mentioned, is mainly responsible for wheat's moving counter to most of the other crop prices. Spring wheat in our own Northwest has turned out rather better than earlier indicated with a possible crop of 238 million bushels as against 228 million bushels a year ago. Winter wheat, it will be recalled, promised 597 million bushels on August 1 as against 578 million bushels a year ago so that the combined prospect for all wheat in this country is about 835 million bushels against 807 million bushels last year.

Canada's prospect in the three prairie provinces is for 347 million bushels against 282 million bushels a year ago.

Corn price passes wheat

THIS points to a North American yield of about 1,200,000,000 bushels as against 1,100,000,000 bushels last year with a carryover at least equal to a year ago.

Early unofficial estimates of the corn crop lean to something less than two billion bushels, a loss of about 800 million bushels from July 1 and of 600 million bushels from a year ago. This latter probability has made possible the deposition of wheat as the premier cereal, nothing like the excess of 15 cents in prices of corn over wheat having been witnessed in many years, if indeed ever before.

Conflicting reports as to the outlook in the canning trade render output doubtful. It is true that acreage devoted to canning crops was increased this year but undoubtedly a great deal of damage has been done. The reported going into full operation of a number of tin plate mills rather negatives the idea that the shortage will affect that branch of the steel trade.

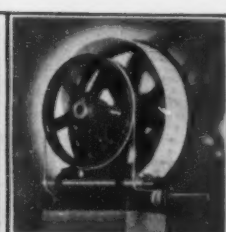
Business Indicators

Latest Month of 1930 and the same month of 1929 and 1928
compared with the same month of 1927

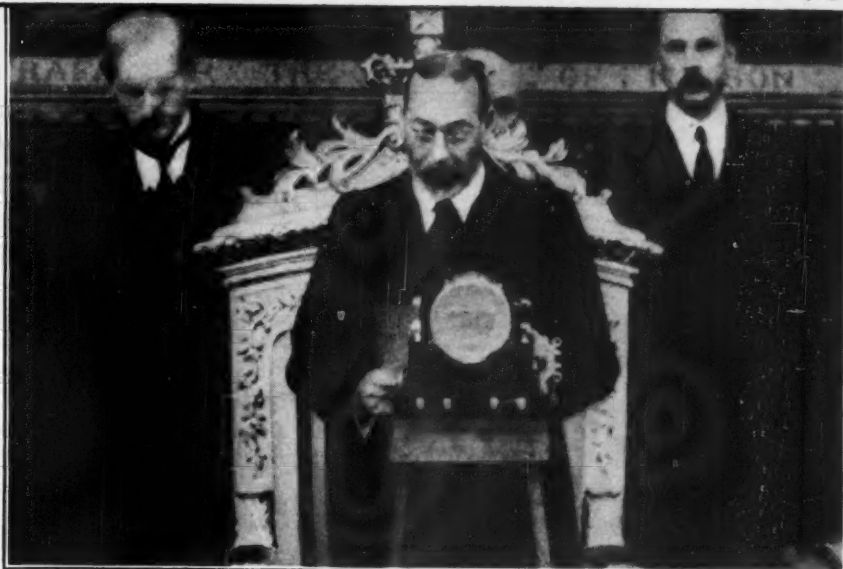
	Latest Month Available	Same Month 1927=100%		
		1930	1929	1928
<i>Production and Mill Consumption</i>				
Pig Iron.....	August	86	127	106
Steel Ingots.....	August*	89	141	119
Copper—Mine (U. S.).....	July	83	121	112
Zinc—Primary.....	August	84	113	106
Coal—Bituminous.....	August*	91	106	101
Petroleum.....	August*	97	117	99
Electrical Energy.....	July	119	122	110
Cotton Consumption.....	July	62	90	75
Automobiles.....	August*	80	164	149
Rubber Tires.....	June	92	125	110
Cement—Portland.....	July	98	98	101
<i>Construction</i>				
Contracts Awarded—36 States—Dollar Values.....	August	66	88	93
Contracts Awarded—36 States—Square Feet.....	August	57	91	108
<i>Labor</i>				
Factory Employment (U. S.) F. R. B.....	July	86	103	98
Factory Pay Roll (U. S.)—F. R. B.....	July	83	106	99
Wages—Per Capita (N. Y.).....	July	98	103	101
<i>Transportation</i>				
Freight Car Loadings.....	August*	87	105	100
Gross Operating Revenues.....	July	89	109	101
Net Operating Income.....	July	97	144	112
<i>Trade—Domestic</i>				
Bank Debits—New York City.....	August*	84	155	111
Bank Debits—Outside.....	August*	97	120	104
Business Failures—Number.....	August	112	103	108
Business Failures—Liabilities.....	August	125	86	148
Department Store Sales—F. R. B.....	July	96	107	104
Five and Ten Cent Store Sales—4 Chains.....	August	106	118	104
Mail Order House Sales—2 Houses.....	August	140	159	122
<i>Trade—Foreign</i>				
Exports.....	July	79	118	111
Imports.....	July	69	111	100
<i>Finance</i>				
Stock Prices—30 Industrials.....	August	125	195	121
Stock Prices—20 Railroads.....	August	92	127	100
Number of Shares Traded.....	August	85	196	132
Bond Prices—40 Bonds.....	August	99	95	97
Value of Bonds Sold.....	August	57	85	60
New Corporate Capital Issues—Domestic.....	August	136	197	88
Interest Rates—Commercial Paper, 4-6 Months.....	August	77	155	138
<i>Wholesale Prices</i>				
U. S. Bureau of Labor Statistics.....	July	89	104	104
Bradstreet's.....	August	81	98	103
Fisher's.....	August	89	105	107
<i>Retail Purchasing Power, July 1914=100%</i>				
Purchasing Power of the Retail Dollar.....	July 1930	66	62	62
Purchasing Power of the Clothing Dollar.....	July 1929	65	60	58
Purchasing Power of the Food Dollar.....	July 1928	69	63	65
Purchasing Power of the Rent Dollar.....	July 1927	65	63	62

* Preliminary.

Prepared for Nation's Business by General Statistical Division, Western Electric Co.



BAKELITE SURVEYS A NATION'S INDUSTRIES



RADIO

More than a decade ago, when a whisper heard through the headset of a small, weak, home built receiver gave a real thrill, Bakelite Materials earned recognition as the premier insulations for radio. Today, when families from coast to coast may lounge in comfort at home, and listen to King George of England open the Five Power Naval Conference in London, Bakelite Insulations continue to be supreme.

Now that radio receivers are instruments for faithfully reproducing every accent and gradation of tone in the human voice, and in instrumental music, uniformly depend-

able insulation is of even greater importance than ever before. It is a notable fact that the makers of radio receivers rely upon Bakelite Insulations to protect the performance of their receivers.

Bakelite Molded is used for drum dials, knobs, tube bases, condensers, plugs and other parts, and even for cabinets. Bakelite Laminated is used for coil forms, sub-panels, tube sockets and for innumerable insulation parts. Bakelite Varnish is used for various purposes. These materials suffer no impairment through age, use, or changes in climatic or temperature conditions.

NEXT MONTH ELECTRICAL INDUSTRY

The Story of Bakelite Resinoid. This outstanding romance of industry is of absorbing interest. It is told in an industrial motion picture film showing the various stages in the manufacture of Bakelite Materials, and the fabrication of finished products. A two-reel print on standard width non-inflammable stock will be loaned free of charge. Write for copy of Booklet 42M.

BAKELITE CORPORATION

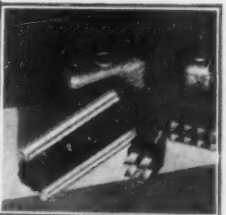
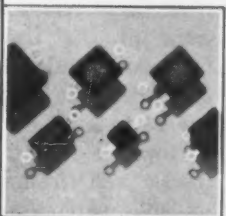
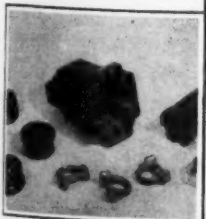
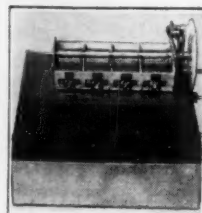
247 Park Avenue, New York, N. Y. Chicago Office: 635 W. 22nd Street
BAKELITE CORP. OF CANADA, LTD., 163 Dufferin St., Toronto, Ont.

BAKELITE

The registered Trade Mark and Symbol shown may be used only on products made from resins manufactured by Bakelite Corporation. Under the copyright "B" is the numerical sign for identity, or unlimited quantity. It symbolizes the infinite number of present and future uses of Bakelite Corporation's products.

THE MATERIAL OF A THOUSAND USES

When writing to BAKELITE CORPORATION please mention Nation's Business



Common Sense Is the Best Subsidy

By W. GERALD HOLMES

Industrial Engineer, New England Public Service Company



FOR many years cities and towns, particularly those of small and medium size, have offered special inducements to attract industries. Foreshadowings of the practice can be traced to times earlier than the beginnings of industrial history in America, for it is recorded that, "Under Elizabeth the Government began systematically to foster new industries by granting patents, monopolies, and special privileges to capitalists introducing them."

In the older industrial sections of the United States many successful manufacturing enterprises can trace their existence to a bargain by which a town agreed to provide money and the manufacturer to build a plant and start a factory. Communities even raised money by taxation for this purpose. Sometimes the townspeople took stock in the business for their money, but when they did the stock was frequently worthless or became so and if they did not eventually turn it in to the factory owner they seldom realized anything on it. The idea was to get manufacturing started at any cost.

As communities have be-

YOUR town wants more factories. If it is a progressive community, it might offer inducements, like a free site or low taxes, to get them. That would be quite right—if the factories were the right factories.

However, some factories now flourishing in other places would die in your town. Others, just struggling along, would grow and prosper there. How can you tell which ones to bring in? Mr. Holmes, who for some time was in charge of industrial development in Indianapolis, under the Chamber of Commerce there, gives you some pointers



come more experienced in soliciting industries, many forms of inducement have been used. Chief among those now offered, besides the outright gift of money, are tax abatement or exemption, free land or the free use of vacant buildings, subscription to stock or bond issues at unusually favorable terms, and general financial assistance through the industrial foundation or revolving factory fund.

The justification for attempting to lure the manufacturer by such means is that the whole community profits by having more people employed, and hence more money put into circulation. If the enterprise succeeds everybody profits—the manufacturer himself, real estate dealers, public utilities, merchants, professional men, theater owners. Cities and towns feel that they can afford to give something to get increased factory pay rolls and increased business.

Buying useless factories

MANY localities believe in this practice; others condemn it. The practice is by no means obsolete, however, and in one form or another is probably

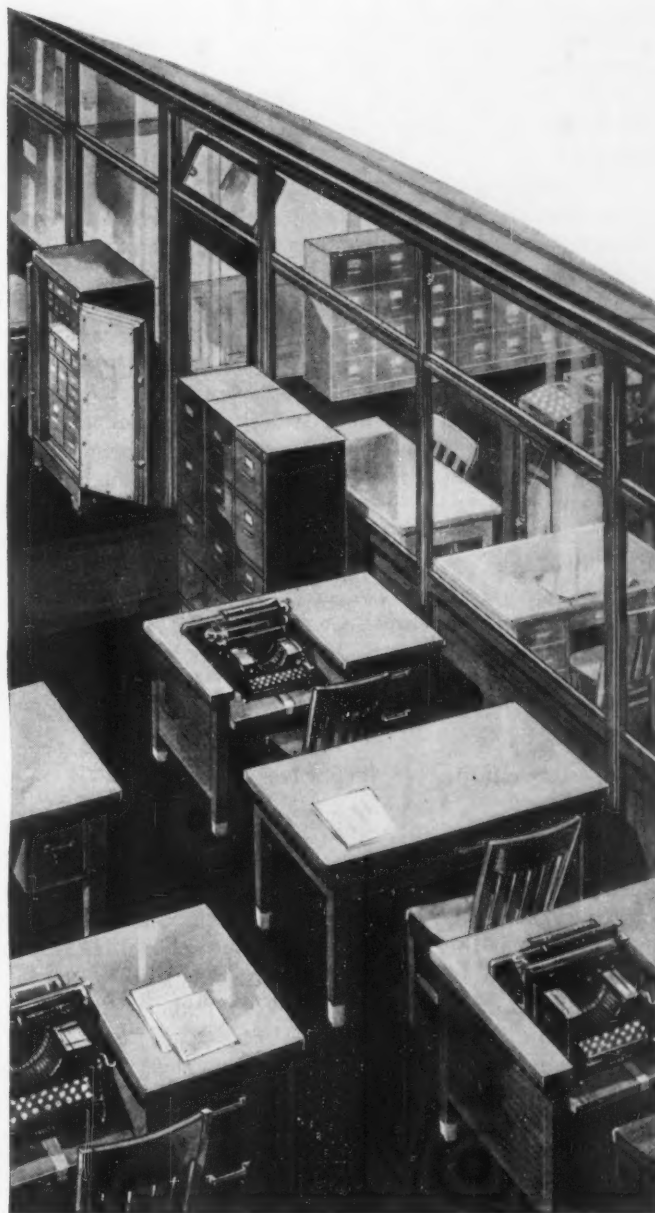
Business

the drawers and doors move mutely at the touch of a fingertip. The smooth, clean corners delight executive and employee alike.

Nor is steel confined to these uses alone. Note the baseboards, mouldings, doors and partitions in modern buildings—they, too, are steel—beautiful, fire safe, requiring the very minimum of upkeep.

Thus, as business progresses, steel progresses. This is only logical, for steel replaces inflammable materials with a fire safe material—finishes that scar easily, with baked-on finishes that retain their original fresh appearance. Add to this, the fact that a steel article can never warp, shrink, or splinter, and the reason for the ever-expanding use of steel products becomes easily understood.

For complete information regarding steel office furniture and equipment—or any other steel products, address Trade Research Division, National Association of Flat Rolled Steel Manufacturers, 511 Terminal Tower Building, Cleveland, Ohio.



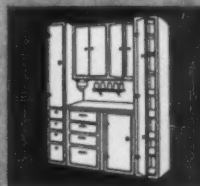
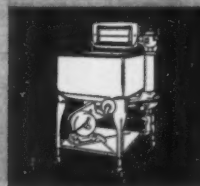
with Steel AND EQUIPMENT



Steel Auto Bodies save life—eliminate body squeaks and expensive repairs.

Pressed Steel saves weight and machining expense. Reduces costs and breakage.

Steel Household Furniture and Equipment saves housework. Beautiful, clean, sanitary, durable and modern.



followed as generally today as ever before.

Communities already well developed industrially are more conservative than their contemporaries, but the general principle of giving something to get industries is more widely endorsed than persons unfamiliar with conditions throughout the country are willing to admit.

The advantages and dangers of subsidies are to be judged from two points of view—that of the manufacturer and that of the locality. The manufacturer must be considered first, for he is the object of the industrial development quest. If he is attracted and succeeds, the community profits by a new industry. If he fails, the community loses. No city or town wants to import a failure.

Whether the offering of special inducements is right or wrong so far as the community is concerned, unquestionably there are times when the manufacturer benefits by accepting them. If he can get the right concessions under the right conditions he is so much ahead. But the danger of overestimating the value of concessions is very great.

Concessions look larger

MOVING expenses when a plant is to be relocated, a free site, free rent for a year or two or tax exemption for five or ten years are likely to seem more important than they really are. They should be taken into account only as they affect unit production costs. For example, to a rayon company investing five million dollars to produce three million pounds of yarn a year the gift of a \$25,000 site would mean a saving of five one-hundredths of one cent a

pound in the cost of production, assuming interest at six per cent. This would be of little consequence when the yarn is worth a dollar or more a pound; yet a free site has been considered a substantial inducement to the location of a rayon mill.

In the early days of bonus giving, capital was a less important factor in manufacturing than it is today and it was less specialized. Factories were small and most of the work was done by hand. When the manufacturer needed money he had fewer ways of getting it. The situation was different in many respects. Towns which provided capital to start factories usually entrusted it to one of their own townspeople or to someone from a nearby town whom they knew well. Less money was required and the risks were smaller.

Since capital has become more important in industry and the average size of factories has increased, the prospective manufacturer can scarcely hope that any community will give him all or most of the money necessary to start business. About the best he can do is to enlist the financial support of his friends.

Once started, unless he is exceptionally capable, he is likely to need more capital and, as his business grows, a larger plant and still more capital. If at the same time he finds that he should be located elsewhere, he faces a grave problem. He may know of just the kind of building he wants in another community where manufacturing conditions would be better for him; but to get it and get into it, at the same time keeping alive, is beyond his financial strength.

So situated and knowing that the other community is probably eager to have its vacant factory building occupied, this manufacturer is entirely justified in seeing what assistance he can get. Perhaps he is offered free rent for two or three years, practical exemption from taxes on his machinery and materials and a cash bonus amounting to half his moving expenses.

Such a proposal is not unusual. The manufacturer's natural inclination is to

accept, for he seems to be getting just what he wants practically as a gift. Whether he should take the offer or decline it depends on whether he is prepared to take care of the other expenses of moving and to handle the larger volume of business which he believes makes the change feasible. He is sure to put more time and money than he anticipated into taking down machinery and setting it up again.

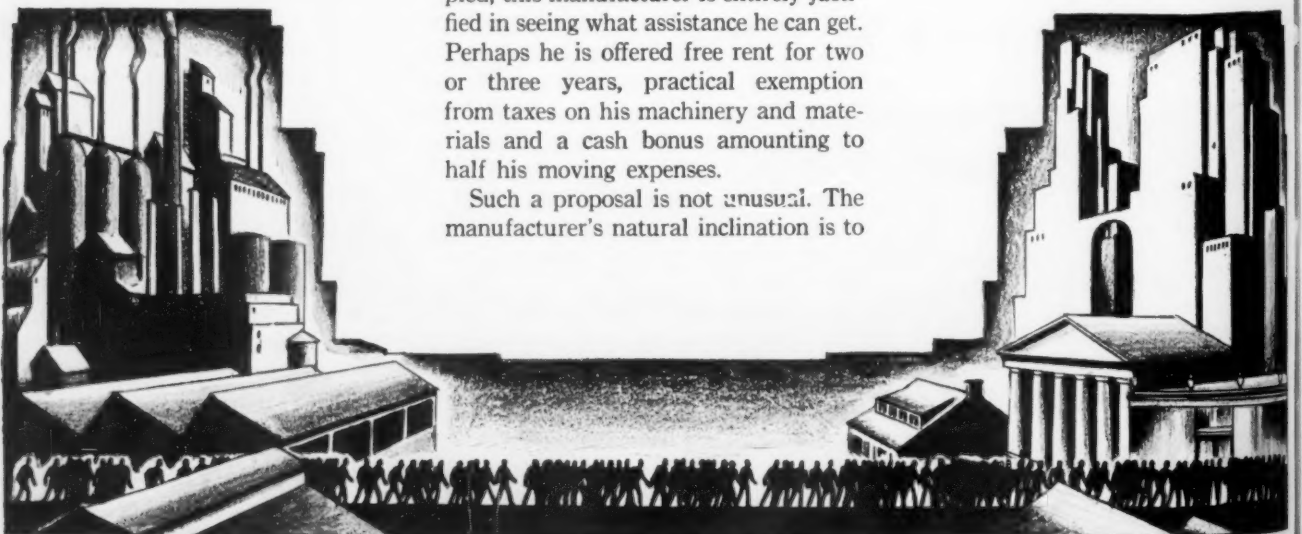
Moving expenses run high

THE prospect of more business urges him to buy new equipment. His production is interrupted and he has to train new labor. Little by little his working funds are cut down until, instead of having enough capital to carry a larger business, he finds himself with actually less than in his old location.

The plain fact is that to move successfully a manufacturing business must be much better off than to be continued profitably in its old location. The lure of the bonus and other inducements is dangerous. Whatever may be offered should be considered only in relation to the condition of the business and in the soundest comparison with the total expenses of moving and future financial requirements.

Many manufacturers who know they would be better off in another location do not undertake the change soon enough and when they finally do, they fail in spite of bonuses and other concessions.

Communities have had their experiences with such cases. Frequently they have raised almost their last dollar and given it gladly to get a factory, only to have a well meaning but ill-advised



A million dollars a year paid to wage earners becomes at once a million dollars a year of new business. No reasonable person will hold that the benefit is not worth paying something for



WHERE THE CHIMNEYS LOOM LURKS TIME, THAT TOUGH OLD TESTER

Where the chimneys of industry loom black against the sky, Time, That Tough Old Tester, draws his deadliest weapons. With acids and alkalis, with shattering vibration and ceaseless strain, he here attacks the works of man with greater eagerness, to prove how long things last.

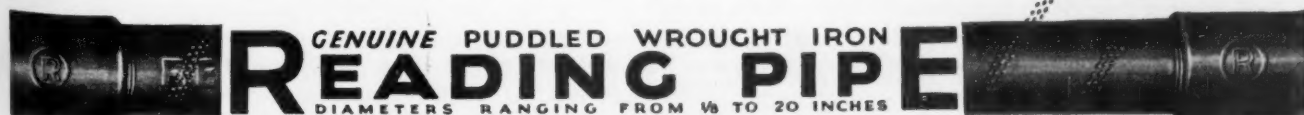
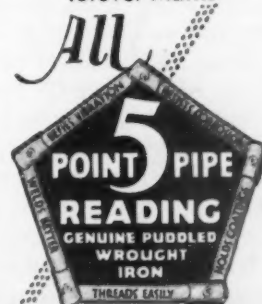
And here, amid the mightiest of Time's destructive forces, you will find Reading 5-Point Pipe . . . resisting corrosive gases and fluids . . . absorbing shock and strain in its tough, fibrous structure . . . lasting from two to five times longer than ordinary pipe under Time's severest tests!

For Time . . . That Tough Old Tester . . . must stay his hand before Reading 5-Point Pipe, whether he finds it installed above ground or below. The long generations have shown that Genuine Puddled Wrought Iron, the material of which this pipe is made, defies Time's onslaughts as does no other. That is why Reading 5-Point Pipe means enduring economy, enduring satisfaction.

READING IRON COMPANY, Reading, Pennsylvania

Use only Reading 5-Point Nipples with Reading 5-Point Pipe . . . you'll know them by the indented spiral band.

For Your Protection,
This Indented Spiral
Forever Marks



Science and Invention Have Never Found a Satisfactory Substitute for Genuine Puddled Wrought Iron

manufacturer lose their money with his own. It takes much more than any community will give to make a weak business strong.

In establishing a branch or an entirely new primary plant the situation is but little different. All that is free should be considered only in conjunction with all the other conditions and requirements. Folly has led some manufacturers to build plants where the concessions totaled largest, almost utterly disregarding economic conditions.

In establishing a new plant most concessions are to be classed as capital benefits, and not operating benefits. Hence they affect production costs from year to year only as they reduce fixed charges. So regarded, a gift of \$10,000 is worth only the annual interest on that amount or, at six per cent, \$600 a year. This, spread over very many units of product, is soon lost in decimals on the cost sheet.

It is becoming more and more common for communities to offer subscriptions to preferred stock or bond issues at par as inducements to manufacturers. The feeling seems to be that this is more equitable because it gives them a chance to get their money back directly rather than indirectly through the growth of the community. The manufacturer issues bonds or preferred stock—usually the latter—against his assets, agreeing to pay interest on them at a certain rate, and perhaps to retire them in installments at specified times.

Securities sold in community

THERE seems to be no limit to how far some towns will go in a deal of this kind. A public subscription to preferred stock equal in face value to half the book value of a company's total assets is common, and some localities have been willing to go to the full value of inflated assets. The funds provided may go into a new plant, into new machinery, into working capital, or old debts.

Some manufacturers have been able to get practically all the money required to start an entirely new venture or to open a new branch. Scores of towns, particularly in the newer industrial sections, will gladly assume the whole financial burden of a new building on a bond issue, and they sometimes can be satisfied with preferred stock.

Such ways of financing a business are abnormal. They are not subject to the usual checks and balances on the availability of money. They appear attractive, but they are not always sound. Finance is a business, almost a profession. The man who can make goods and

sell them cannot always do justice to his own company's financial affairs.

If a man with manufacturing ability ever needs to go to established financial agencies it is when he thinks he needs more capital to enlarge his business. Most especially he should not allow himself to be led into distorted programs of progress because a community promises easy money.

Cheap branches may hurt

SUBSTANTIATING illustrations are to be found on every hand. A few years ago a manufacturer in the Middle West who was running two plants successfully decided to open a third. In looking for a location he received offers from communities eager to make a deal with him, almost at his own terms. Finally he chose one, built a plant, equipped it and put it into operation with comparatively little added financial burden to his company. His business grew, and since he had a low overhead in his new plant it made him unusually large profits.

Soon afterward he started another factory in another locality under similar conditions. Then he opened a fifth plant and a sixth, in each case getting a community to subscribe to a block of his preferred stock practically sufficient to build and equip the new factory. But the industry entered a slack period. He had been pinching himself for current funds and was not prepared for the emergency. His more stable competitors chose to keep their plants running at any cost, and he saw his air castle crashed to ruins.

Almost certainly if he had continued with his two original plants, or even three, and had given his attention to strength rather than to size, he would have come safely through the depression.

Another middle western manufacturer with a fairly prosperous business decided that his program necessitated moving to a smaller city. Picking out a locality that seemed suitable, he laid his case before its chamber of commerce. He needed a building and increased current funds. Considering the size of his business and the town's need for another industry, the chamber was inclined to undertake to raise the money. Part was to be secured by a mortgage on a building and the balance by preferred stock.

Just as the deal was about to go through someone proposed asking more experienced advice than had yet been obtained. The man consulted was fully as eager as any of the others to see a new industry brought to town, but he at

once sensed a weakness in the program.

Inquiring carefully into the nature of the prospective new industry and into its economic requirements, he decided that it would be a mistake to move it from where it was. A careful investigation followed. The manufacturer welcomed this and cooperated to the fullest extent. When it was finished there was but one possible conclusion—that if the factory was moved failure was inevitable. All the important items of cost but one would be increased, and the saving in that would be negligible.

The dangers to the community of subsidizing the manufacturer are associated with the dangers to the industry itself. Far and wide over the country monuments of brick and mortar to the unwise liberality of local boosters may be found. Perhaps the enterprise had no economic justification to begin with. Perhaps it was improperly financed. Perhaps it was disadvantageously located, or for some other reason was burdened with excessive costs.

The psychology of both parties to the usual case of community subsidy must not be overlooked. Most towns know that industry means factory pay rolls. A million dollars a year paid to wage earners becomes at once a million dollars of new business. No reasonable person will hold that the benefit is not worth paying something for, but the right price is always an open question.

Understanding this state of mind of the average community, the manufacturer holds the trump cards. He knows that he can play to advantage if he chooses. Once he lets it be known that he is looking for a location, he receives a handful of offers in every mail.

In a short time the field is narrowed to a few places and both the manufacturer and the communities become serious. Committees are appointed. Representations are made. Reports are obtained. Conferences are held. Finally an agreement is drawn up.

Towns may lose later

A FEW years pass. If the decisions were wise all is well. But if the enterprise fails those who gambled have lost.

This is the crux of the whole problem. By and large it is a gamble. Hundreds of towns have played and lost. From the conspicuous case of a middle western city which has given two million dollars and has nothing for it, there is a full line of instances to the many whose mistakes have cost them from \$10,000 to \$25,000.

Manufacturers of questionable intent have preyed upon many. Assets are

often exaggerated and liabilities concealed.

Never subsidize? By no means. Often it pays. In these days it is as unwise never to give as never to refuse. Business is involved and one of the principles of business is that increased volume with increased profits is worth something. Individual businesses in a community are justified in paying to get new business. Nor would an inter-community code of ethics help much. Nothing could prevent individuals from doing what a community organization would be bound not to do.

Subsidies cannot be done away with, but they can be given more wisely. No infallible rules can be prescribed but a conservative attitude of approach can, to some extent, be indicated.

Subsidies on a business basis

WHEN subsidies are under consideration, the burden of proof should always be placed on the industry. The prospect should be required to give ample evidence of his own merit and that of his enterprise. Civic enthusiasm should be closeted and the problem dealt with on a strictly business basis. A community asset of certain alleged value is offered at a certain price in subsidies. The most thorough study possible should be made to determine what benefit might reasonably be expected to accrue to the locality.

Probably every community which ever dealt with a case of this kind was confident of having been thus careful. No responsible manufacturer ever knowingly allowed himself to be unduly influenced in plant location by subsidies. Yet both communities and manufacturers, each in good faith, have made costly errors.

In 1896 Prof. E. A. Ross of Leland Stanford University, discussing the location of industries, wrote:

"There is, in fact, no economic advantage of one place over another which may not be overborne by an artificial advantage." This, from so eminent an economist, leaves open a wide door for subsidies. Clearly, however, it has definite practical limitations, for there is a point beyond which artificial advantages cannot be created and maintained. Even tax exemption wears itself out, for if industries are attracted by it public expenses are increased and the tax paying industries of the locality stubbornly fight the heavier burden.

The community agreeable to subsidizing industry is in the position of the individual with money to invest. It may gamble wildly or buy with discretion.

WESTERN UNION

RECEIVED AT 169 Congress St., Boston, Mass.

NA988 18=HK NEWYORK NY 16 1003A

C A CRANE, SUPT=

THE WESTERN UNION TELEGRAPH COMPANY BOSTON MASS=

CONSTRUCTION WILL START IMMEDIATELY ON OUR NEW BOSTON OFFICE

BUILDING STONE & WEBSTER ENGINEERING CORPORATION ENGINEERS

AND BUILDERS=

CARROLL.

TO SEND MONEY IS BY TELEGRAPH OR CABLE.

BUILDERS and ENGINEERS
For the
BUSINESS LEADERS
OF AMERICA

Selected by Western Union for the twelfth time

Eleven principal construction contracts and six engineering reports have been completed by Stone & Webster Engineering Corporation for The Western Union Telegraph Company at home and abroad. The twelfth contract is for the client's Boston Office.

Over 79% of recent work is repeat business. Over 75% of our work, during the last 10 years, has been for concerns not connected in any way with Stone & Webster interests. We offer over a billion dollars of construction and engineering experience to those who demand speed, efficiency, and economy in building work.

STONE & WEBSTER ENGINEERING CORPORATION

A SUBSIDIARY OF STONE & WEBSTER, INCORPORATED

The Iron Industry Comes Home

By TULLY NETTLETON

Special Writer, The Christian Science Monitor



The old iron works house at Saugus, Mass. Joseph Jenks, master mechanic, once lived in it

THE iron maker's furnace is coming back to its first home in America. In three years, more than 500,000 tons of metal have been poured from a blast furnace in Everett, Mass., less than seven miles from Saugus, Mass., site of the first successful iron furnace in this country.

This, of course, is but a small offshoot as compared to the main body of the iron industry which migrated from New England 100 years or more ago and has since grown to gigantic proportions in Pennsylvania and in the Great Lakes region.

But the industry, however it may spread in America, still will trace its lineage back to a little charcoal forge in the Saugus woods of the Massachusetts Bay Colony and to an ingenious, energetic master mechanic, Joseph Jenks, who certainly deserves to be better known as America's pioneer ironmaster.

This little furnace, starting operations about 1643, was one of the beginnings of America's independence. It supplied the colonists with nails, cooking utensils, axes, scythes, cannon and shot and finally turned out a fire engine for Boston and a set of dies for coining the "pine tree shillings" which, some historians say, constituted Massachusetts' first act of separation from the mother country.

The charcoal furnace was no more primitive than were the sources from which these colonial metal workers drew their ore.

Ore for the Saugus furnace and others in New England came from the bottoms of bogs and ponds, with such an admixture of sand, clay and vegetable matter that it yielded

THE FIRST iron foundry in America was a pitifully inefficient little plant struggling for existence in a community where pirates were the only customers with ready cash. But it played its part in making this a free nation and was a worthy ancestor of the foundries coming back to New England today



Equipment for hearths like this made up a large part of the iron works' output

only 18 to 30 per cent of iron. When it was learned that pond ore was cleaner than that from bogs, men pushed out in boats with long-handled, spoonlike shovels to ladle up perhaps two tons of ore a day.

Moreover, when this mineral muck was dug up, when trees were cut and half-burned into charcoal, when oyster shells were gathered for flux, and all three were burned together with much pumping of hand or water power bellows, the one goal of the whole process was a small quantity of the most common of metals. By-product manufacture had not yet come into the picture.

Today, iron manufacture as practiced by the Mystic

2 WAYS to greater profits

INCREASE SALES - REDUCE COSTS

Addressograph will do both

To increase sales these days it's up to you to make more frequent contacts, to cover a greater number of prospects, to dig up new customers as well as reach the old. And the job must be done without boosting sales expense!

Here's the answer. Supplement the efforts of your present sales force with a scheduled mail campaign. Addressograph will handle it quickly, accurately, and at minimum cost.

Addressograph does a lot more than increase the effectiveness of your direct mail advertising. It helps maintain lists of prospects and customers, to reveal what and when they buy. It gives you a way to get the right selling message to the right buyers at the right time. It makes possible customer-control campaigns. It helps revive inactive accounts. It promotes particular departments of your business. It helps increase each customer's purchases.

Addressograph helps cut operating costs too. It has a use in every department of your business, in record-keeping, routing, shipping, collections, disbursing, production, duplicating, printing and mailing.

And wherever it's used, Addressograph does the job cheaper and 10 to 50 times faster than was possible by the old methods.

The Addressograph representative in your locality is ready with ideas and methods for increasing sales and reducing costs. He is at your service. Make use of him.

ADDRESSOGRAPH COMPANY

General Offices: 901 W. Van Buren Street, Chicago, U. S. A.

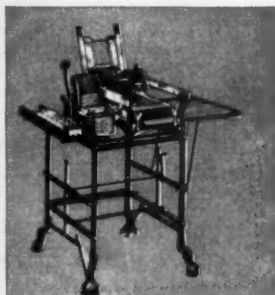
Canadian General Offices: Addressograph Co., Ltd.
30 Front Street, W., Toronto, Ontario.

European General Offices: Addressograph Ltd., London N. W. 10

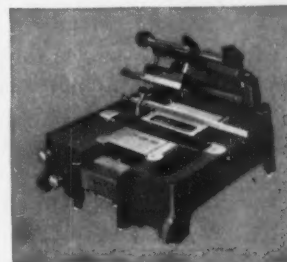
Divisions of Addressograph International Corporation.

Factories: Chicago, Toronto, London, Berlin, Paris.

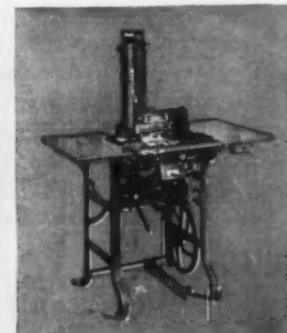
Sales and service agencies in the principal cities of the world



Class 5200 Dupligrath produces 500 personalized letters an hour with name and address, salutation, body of letter and date. Price \$275 to \$350, other duplicating machines \$57.50 to \$2,025, f. o. b. Chicago.



The Addressograph line is complete—small or large machines as the business requires. These machines operate at speeds of 500 to 12,000 impressions per hour. Small machines from \$20 to \$264.75—electric machines from \$295 to \$785—automatic machines from \$595 to \$12,750—duplicating machines from \$57.50 to \$2,025, f. o. b. Chicago.



Addressograph

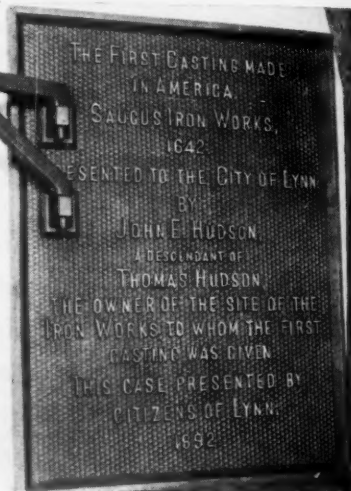
TRADE MARK

PRINTS FROM TYPE



Site of the first successful iron works in America. The mound is scoria from the furnace

The first iron casting made in America. Poured in Saugus about 1642



Company, a subsidiary of the Koppers-owned Massachusetts Gas Companies is simply part of a chain of manufacture in which it is hard to tell which is the main product and which the by-products. The iron is made with the coke that is left after supplying Boston with gas.

Thomas Dexter found iron ore

IT was Thomas Dexter in old Lynn, of which the present Saugus was then a part, who convinced Capt. Robert Bridges that he had found a bog of iron worth exploiting.

In those times they were more particular than now about whom they called "Mister." Consequently, Tom Dexter was not "Mr." Dexter in any records that have come down to us. He was "Farmer Dexter" or "Goodman Dexter." Of much more weight and worth was Captain Bridges, who was described by a chronicler of early times as "endued with able parts and forward to improve them to the glory of God and his people's good."

Captain Bridges took samples of Dexter's ore to London and persuaded 11 well-to-do Englishmen to form a corporation with 1,000 pounds capital to set up an iron furnace in the new colony.

The company soon sent over a number of superintendents and workmen from England, among them Henry and James Leonard, who, with their descendants, had a hand in much of the later spread of the iron business in the Atlantic states.

In charge of the expedition was Richard Leader, an experienced iron maker. Under his direction, a furnace and forge were built on the banks of the Saugus River in what was then Lynn. They called their village Hammersmith after the place they had come from in England. Where the ore bogs were is not known, though they were said to be in "Adam Hawkes' meadows" and the first deed in the Essex county registry conveyed ore land from Dexter to Leader for a payment of 40 pounds a year.

That Dexter, the discoverer, did not thereafter have a larger part in the enterprise seems explained by his general trouble-making proclivities. He was frequently in court for drunkenness, fisticuffs and talking disparagingly of the local government.

Once when on trial in Salem he so exasperated Magistrate John Endecott that the latter struck him and in turn was fined by the General Court in Boston for forgetting himself on the bench. Some years earlier Dexter had been ordered to

"be set in the bilbowes (a kind of stocks), disfranchised (*sic*) and fined 40 pounds (a heavy fine for those times) for speaking reproachful and seditious words against the government here established."

But it was not difficult to get one's self into trouble on such charges. Several years later Richard Leader was heavily fined for having "threatened, reproached and slandered" the courts and government of the "common weale."

Lynn historians hold that the Saugus works began operation as early as 1643. At about the same time, Leader established another furnace for the same company in Braintree, and though some Braintree folk once claimed their plant was first, the consensus has gone in favor of Saugus.

Site is still preserved

THREE Braintree researchers have three different theories as to where their furnace stood, but the site of the Saugus works, now only a short walk from the Saugus Town Hall, has been marked with a tablet by the Lynn Historical Society, and its location is further indicated by grassy hummocks formed of scoria from the furnace and by a house which Dexter built and Jenks occupied just across the street from the works. This site at the time of its use was at the head of navigation on the Saugus River and near a ford on the Boston-to-Salem highway.

In 1645 the colonial court gave this company "sole privilege and benefit of making iron and managing all iron mines and works that now are or shall be discovered in this jurisdiction for 21 years," together with freedom from taxation for that period and the right to use all "yron stone and yron oare" in



Earliest type
of fire engine used
in America

One Way to Reduce Overhead

THE unfortunate aspect of most plans to reduce overhead is that they require a considerable initial capital investment.

There is one major item of property ownership overhead that may be reduced appreciably and safely—and with no initial investment. It is the item of fire insurance.

Thousands of property owners, corporations, estates, partnerships and individuals are turning to strong, legal reserve, mutual fire insurance companies for the safety and saving they offer. A mutual corporation is under no compulsion to make profits for stockholders—for there are no stockholders.

The sole aim and the one authentic measure of the ability of mutual management, is to furnish sound insurance at the lowest possible cost to the insured.

Mutual Fire Insurance has served American property owners for 178 years. Few periods in that time have presented so definite and practical a need for its saving and service.

A booklet is available on request. It will help any property owner to judge of the merits of the various types of fire insurance carriers. Address Mutual Fire Insurance, Room 2206-G, 180 North Michigan Avenue, Chicago, Illinois.

An Unparalleled Record

75 leading, legal reserve companies under State supervision constitute the Federation of Mutual Fire Insurance Companies. The oldest Federation company was founded in 1752. Five others are more than 100 years old.

Of the remaining companies—

9 are between 75 and 100 years old
10 are between 50 and 75 years old
30 are between 25 and 50 years old
20 are between 10 and 25 years old

The Federation companies are protecting property to the extent of six billion dollars—have assets in excess of ninety million dollars—have returned to policyholders savings of more than one hundred and thirty millions of dollars.

Mutual Fire Insurance

FEDERATION OF MUTUAL FIRE
INSURANCE COMPANIES



When writing to MUTUAL FIRE INSURANCE please mention Nation's Business

waste places and to cut wood from all unappropriated land, a considerable grant in view of the amount of wood used for charcoal in such furnaces.

The court or legislature also urged citizens to subscribe additional capital needed to complete the works.

The promoters, however, were candid enough to invite their prospective fellow stockholders not as "investors" but as "adventurers," and added that if any man would "adventure" 100 pounds or more on the project it would be accepted "in money, beaver, wheat, coals, or any such commodities as will satisfy the workmen."

The company apparently never made any money for the backers in England, but it did make iron for the colony for a number of years. In 1648, a letter of Governor John Winthrop, whose son was active in the enterprise, speaks of the plant as making seven to eight tons of iron a week. While the metal must have been comparatively impure and brittle, it was fluid for casting, and some of the impurities could be worked out by forging. It was boasted that the bar iron was "as good as the Spanish." This bar iron was for the most part nail rod which was cut up and made into nails as a common

fireside industry in nearly every household of the colony.

Of the cast ware several samples remain, among which is one reputed to be the first casting made at the Saugus works and hence the first made in America. It is a small kettle which rests in the Lynn Public Library, having been given to the city by a descendant of Thomas Hudson who sold the company some land and received the kettle in the bargain.

Machine shop proved very useful

FAMILY tradition gives the date of this casting as 1642, which would place the opening of the iron works a year earlier than some claim. The Lynn Historical Society has several other kettles made in Saugus. The works eventually included a bloomery where wrought iron and steel also were made in a deep charcoal fire.

There was also a machine shop where Jenks designed the American type of scythe, the reaping machine of those times. For it he received a seven-year patent from the Massachusetts General Court.

His usefulness continued after the works in general had fallen into financial distress. The plant was attached in 1653 by two Boston men who had loaned most of the working capital, yet a year later Jenks built and delivered to Boston "injins to convey water in case of fire," as the order was described in the town minutes. This was the first fire engine made in America.

An idea of labor costs is given by some account papers of the iron works acquired by the Baker Library of the Harvard School of Business Administration. These show that James Leonard occupied himself about the "finnery chimneys and ye forge" for 15 days for one pound and 13 shillings or approximately \$5.50. Henry Leonard, John Vinton and Ralph Russell, other skilled workers who eventually set up forges of their own, received wages which appear to be calculated at a rate of two colonial shillings and sixpence (about 42 cents) a day.

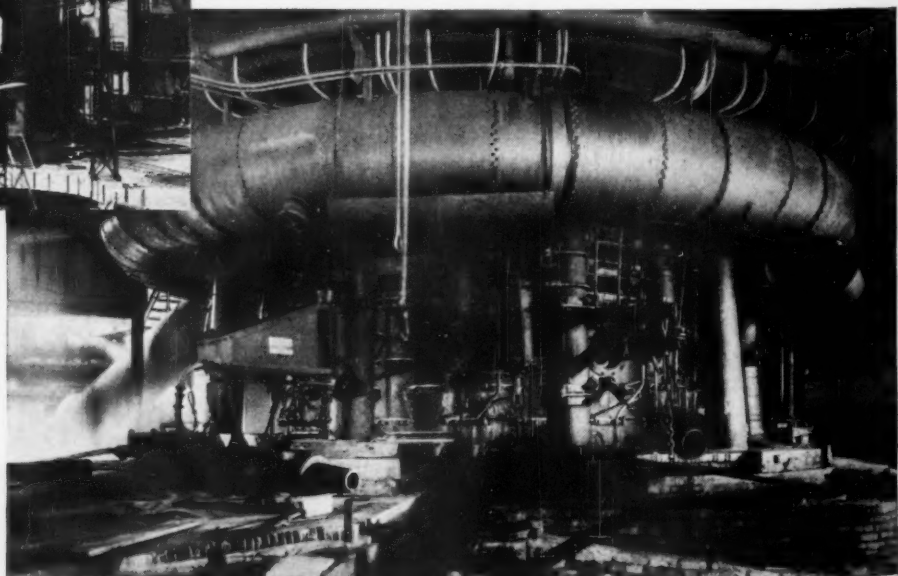
A carpenter who worked nine months was paid 35 pounds or about \$117, while three other men, occupations not specified, labored six months to earn what amounted to from \$55 to \$67 in all.

But wages of unskilled labor were not so extravagant. Woodsmen were paid nine or twelve shillings (\$1.50 or \$2) a week. Much of the common labor was done by 40 Scotchmen who had fallen prisoners to Cromwell's army and been sent



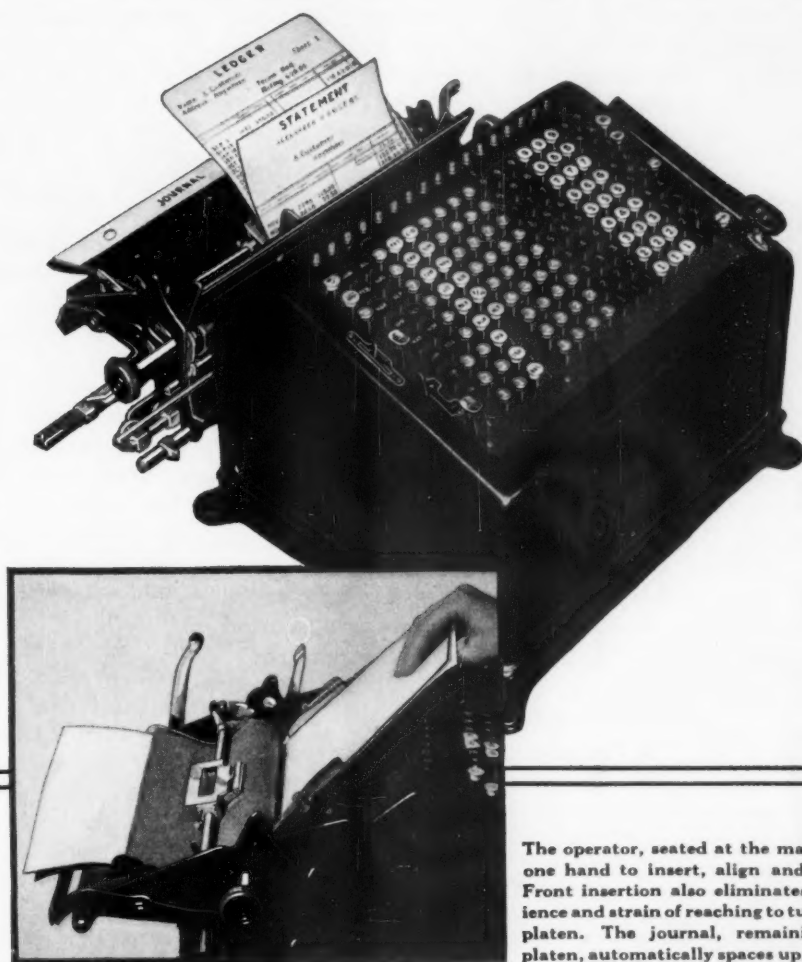
The Mystic Iron Works, modern plant at Everett, Mass.

The base of a modern blast furnace almost on the site of the first iron works to be built in this country



NEW BURROUGHS BOOKKEEPING MACHINE

front feed carriage



The operator, seated at the machine, uses only one hand to insert, align and remove forms. Front insertion also eliminates the inconvenience and strain of reaching to turn forms around platen. The journal, remaining around the platen, automatically spaces up for each posting.

Combines the speed of cylinder platen posting with the speed and accuracy of flat, front-feed insertion. The operations in inserting, aligning and removing forms are reduced to the minimum. Posts two or more records in combination on receivables, payables, payroll, general ledger, distribution, stock records or others. This new machine furnishes full-width proof-journal containing a complete transcript of all postings. Has many other exclusive features. Call the local Burroughs office for a demonstration on your own work, or write—

Burroughs Adding Machine Company, 6130 Second Blvd., Detroit

Burroughs

When phoning or writing a BURROUGHS office please mention Nation's Business

The NEW PATROL



WATCHCLOCK

In the new model Detex Patrol Watchclock, the plant owner is offered:

New simplicity of design that gives greater dependability, greater freedom from repairs, and longer life.

New sturdiness of construction that protects the movement against jars and jolts.

New protection from the dust and dirt that wear out the movement.

Detex Patrol is unique among watchman's clocks in its range and adaptability. One clock registers any number of stations. Any number of watchmen may record at the same station.

The savings in insurance rates will usually pay for a Detex Patrol Watchclock System the first year.

Send for full information

DETEX WATCHCLOCK CORPORATION

4153 Ravenswood Avenue, Chicago, Ill.
29 Beach St., Boston 80 Varick St., N. Y.
Room 800, 116 Marietta St., Atlanta

Manufacturing

NEWMAN • ALERT • PATROL
ECO WATCHMAN'S CLOCKS

Approved by the Underwriters' Laboratories, Inc.
and the Factory Mutuals Laboratory

DETEX

Representatives in all large cities in America and abroad

DETEX WATCHCLOCK CORP.
4153 Ravenswood Ave., Chicago, Ill.
Send me information on the new model Detex
Patrol Watchman's Clock.

Name.....
Address.....
City.....State.....
NR10

When writing please mention Nation's Business

to the iron works under ten years' indenture.

Allowance must be made for the fact that wages usually were quoted "with dyett," that is, including board, which cost the company about 90 cents a day. Besides, a dollar then would buy much more of some things than now. But when it came to buying iron, the dollar then talked only in a whisper. Whereas modern industry may buy pig iron for around \$20 a ton, the price at the colonial foundry was 20 pounds a ton.

But in spite of its low labor costs and its monopoly the company had difficulties from what a modern economist would call the limited purchasing power of its market. People wanted the iron. If they could have paid for it with grain or furs or pumpkins or maple sugar, they would have bought it—or rather would have bought more than they did. What they lacked was not wealth—they had goods to barter—but rather a medium of exchange, actual coined money. Wheat taken in trade in America would not pay dividends due in England, which still produced wheat enough of its own.

A lack of ready money

WHEN the backers of the company complained to the General Court that this infant industry was not receiving the patronage it should from the home market, the court replied:

We acknowledge with you that such a staple commodity as Iron is a great means to enrich the place where it is, both by furnishing this place with that commodity at reasonable rates, and by bringing in other necessary commodities in exchange of Iron exported, but as we used to say, if a man lives where an axe is worth but 12d. yet it is never the cheaper to him who cannot get the 12d. to buy one. So if your Iron may not be had here without ready money, what advantage will that be to us if we have no money to purchase it.

It is true some men have here Spanish money sometimes, but little comes to our Smiths hands, especially those of inland towns. What monies our Smiths can get you may be sure to have it before any other; if we must want iron so often as our money fails, you may easily judge if it were not better for us to Procure it from other places by our corn and pipe staves, &c, then to depend upon the coming in of money which is never so plentiful as to supply for the occasion.

So Jenks may have had sound business reasons of his own for undertaking somewhat to supply the need for "hard money" by making dies for the pine tree coinage from designs his wife is supposed to have drawn.

But however scarce money may have been in the pockets of the smiths there was one class of potential customers who might be expected to have hoards of such currency even though they were not looked upon as ethical business men. These were the pirates of the Spanish Main who were supposed sometimes to fit out their ships at secluded points on the northern coasts—and fitting out a pirate ship required a lot of hardware.

Pirates traded with foundry

THERE is a legend that one evening in 1658 a few persons saw a small vessel anchor near the mouth of the Saugus River and put down four men in a small boat who rowed up the stream and went ashore.

Next morning, the ship having disappeared, the man who opened up the foundry discovered a paper saying that if a quantity of shackles, handcuffs, hatchets and other articles should be deposited in a certain secret place in the woods, silver would be left to pay for it. The goods were made and the order filled. When dawn came the iron was gone and the money found in its place. Though watch had been kept, no ship was seen this time.

A local nineteenth century historian, recounting this tale, goes on to say that the four men came back months later and took up abode in a deep, narrow, craggy valley near by, accounting for its name, Pirates' Glen.

But a later commentator thinks it more likely that this story was spread by men of the iron works who wanted the glen to themselves for their holiday sports, for punch drinking and other private adventures.

By this time other difficulties beleaguered the iron works. Litigation sapped it from all sides. Notwithstanding exemption from taxation, the town demanded pew-rents for the church. This apparently is what got Richard Leader fined for speaking lightly of the authorities.

Trouble started when John Gifford, Leader's successor, raised the height of the dam which supplied water power to pump the bellows of the furnace, overflowing some of Adam Hawkes' land. Another agent took charge and almost flooded Hawkes out of his home. Gifford was in jail for a while over the company's accounts. Around 1670 the works had a burst of activity, but this only encouraged property owners to sue the corporation over land boundaries, damages to crops and so on.

But the forces which finally triumphed over the cohorts of iron, both

WE COULD SELL A GREAT DEAL MORE GREENBAC CHECK PAPER IF . . .



If we were willing to sell it in blank to printers and lithographers as other safety check papers are sold. But we don't. And that is one of the things that makes Greenbac Check Paper wholly unique. One reason why we can offer free to purchasers of Greenbac Checks a \$10,000 bond guaranteeing their security.

Greenbac protection begins at the mill. Every sheet is guarded like money, counted and registered. It is handled *only* by bonded employees and all scraps are burned daily under supervision. It is made up *only* to individual order in the form of completely printed or lithographed checks. It is delivered under seal *only* to accredited bank depositors. Such a policy reduces our revenues, naturally, but it also assures our customers that no one can ever reproduce their check, because no one can secure the necessary Greenbac Check Paper in blank.

And no one can counterfeit Greenbac Check Paper, either. Greenbac's intricate pattern, consisting of interlocking designs in several colors, defies duplication. Under its surface are hidden hundreds of impressions

of the word "void," which flash forth the instant that alteration is attempted and cancel the check forever. Greenbac protection is so complete and Greenbac Checks are so distinctive in appearance, that outstanding business and industrial organizations everywhere have adopted them for general use, as well as for payroll purposes.

The coupon below will bring you the complete story of Greenbac, without obligation. The Todd Company, *Protectograph Division*, Rochester, N. Y. *Sole makers of the Protectograph, the Todd Check Signer and Todd Greenbac Checks.*

10-30

THE TODD COMPANY, *Protectograph Division*
1130 University Avenue, Rochester, N. Y.

Please send me complete information about Greenbac Check Paper.

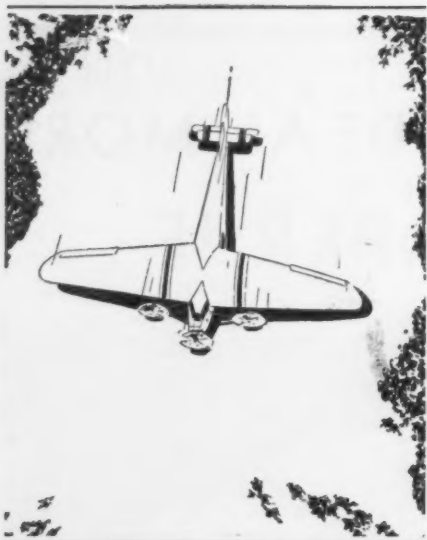
Name

Address

Business

TODD SYSTEM OF CHECK PROTECTION





AN UNFENCED FIELD IS NOT AN AIRPORT

EVERY airport wants visitors... from the sky. If the flier must circle around and around waiting for the field to be cleared of sightseers in order for him to safely land you may be sure he will not call again.

Protect your airmen, protect your ground callers. Surround the airport with a Wickwire Spencer Chain Link Fence. Then, and only then, will the ground crowds be under control.

WICKWIRE SPENCER STEEL CO.

General Offices:

43-49 East 42nd Street, New York City

Factory and Sales Offices:

River Road, Buffalo, N. Y.

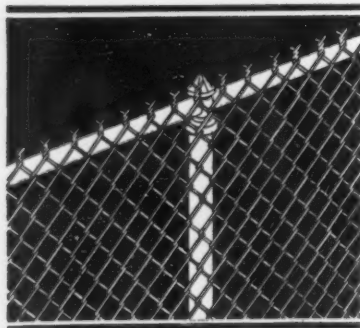
Worcester
Tulsa
Cleveland

Sales Offices:

Chicago San Francisco Los Angeles
Philadelphia Seattle Portland



This triangular name plate appears on all genuine Wickwire Spencer Fences



WICKWIRE SPENCER
Chain Link fence

When writing please mention Nation's Business

in Saugus and in Braintree, were the fishes of the brooks. Residents of Reading, farther up the Saugus River, protested that the iron works dam prevented the alewives, a kind of herring that is not very good eating anyway, from coming up to Reading Pond, and demanded that the way be opened for them. Finally someone hired men to cut the dam.

Similarly, though later, agitation grew in Braintree against the stopping of the alewives at the dam there until at last a committee chosen in the town meeting demolished the barrier under assurance of protection from the town. The owner of the works was reimbursed in depreciated bills of credit.

Other forges were started

THE Saugus property changed hands in 1683 and again in 1688, and probably was out of operation by the latter date. The Braintree works continued until after 1700 though perhaps only as a forge, not a smelting furnace. No doubt by this time better sources of iron had sprung up inland or the communities would not have been so solicitous about the fish.

Certain it is that other forges followed at Taunton, Raynham, and Walpole, Mass., Pawtucket, R. I., and elsewhere. One of the "pond iron" smelting plants in New Hampshire persisted until 1810 or later.

Charcoal furnaces in the Berkshire region of western Massachusetts and northern Connecticut produced fairly heavily until a short time after the Civil War when their eclipse by the growing Pennsylvania industry became complete.

Jamestown tried forging iron

IT SHOULD be noted that the Saugus works were not the first attempt to smelt iron in America. The Jamestown colonists mined and sent ore to England as early as 1608, and in 1622 they built a forge on Falling Creek to reduce bog ore. But when the works were almost complete, Indians attacked the settlement, killed 350 persons and burned the buildings. The enterprise was abandoned.

How thin was the edge of civilization on the Massachusetts coast is shown in a concession by the town of Lynn that workers at Saugus need not stand watch with the rest of the settlers against the Indians nor participate in the military training.

When the Leonards had their forge on Fowling Pond in Raynham they traded with King Philip, whose house

was only a mile and a quarter away, and became such good friends with him that during the war which bore his name the old chief ordered his warriors not to harm these iron makers.

Such were the beginnings of the New England iron industry which is now essaying to resume in part its former place in production.

Close to a large market

NEW England offers a tremendous market for iron. Metal industries there make everything from pipe and gears to airplane motors, razor blades, wrenches, stoves and locks.

Products of the metal industries of New England in a year exceed \$1,600,000,000. A lot of these products begin with pig iron.

Thanks to the combination of water transportation and a supply of coke, T. W. Kennedy, vice president of the Mystic works, declares that requirements as to economy of production are being met and that operation has proved eminently satisfactory. Boston and its suburbs burn so much artificial gas that the Boston Consolidated Gas Company has to turn one million tons or more of coal into coke every year. Affiliated companies bring the coal from their own mines in West Virginia in their own steamships to their own docks at Everett. Limestone for flux also comes by water from Rockland, Me. The coke, a by-product of Boston's requirements of gas, becomes a raw material for iron manufacture.

New locations for smelters

THE situation is local and specialized, to be sure, but if fuel chemists are correct in their forecasts that in the future vastly more bituminous coal will be distilled into gas, this New England furnace points a variation of the old formula that the strategic point for iron smelting is two-thirds of the way from the iron pits to the coal mines. It will in some cases take into consideration a third or even fourth factor—where the coal is to be coked, and where the iron is to be used.

Under these circumstances the future may see some fragments of the iron industry wherever a city consumes enough coal gas to provide cheap coke and enjoys transportation advantages for the fuel and ore. Thus each large manufacturing city may in time have a few blast furnaces merely as an incident to the fact that it is a large city with a taste for gas.

Leads America in Population Gain!



in Business Opportunity

on an equal basis with any other city.

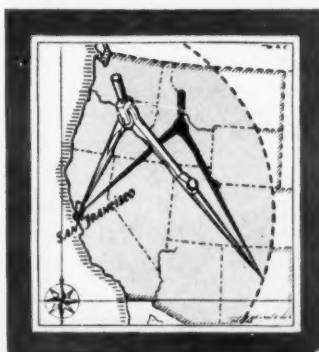
Here are headquarters for the leading industrial, commercial, transportation and financial interests of the West.

Here three transcontinental railroads meet the ocean on the edge of a bay where every ship in the world could drop anchor at one time. Highways radiate to all the West.

San Francisco Bay is the traditional gateway to 90,000,000 people who are rapidly developing modern wants in the lands that the Pacific borders. Already San Francisco Bay ranks second only to the port of New York in value of water-borne tonnage.

Manufacturing in the San Francisco Bay area has an annual value of \$1,127,926,431—43.5 per cent of the State's total.

With this development has grown a population of 1,600,000 people within one hour's ride of downtown San Francisco.



The compass indicates the area whose potent population San Francisco centers.



Within the 42 square miles that comprise the city itself, there are today 637,212 people of more than average per capita wealth.

San Francisco offers able men a brilliant opportunity! Here industry and commerce are rising to meet new great demands. Here is a manner of living that brings thousands who come to visit in this all-year outdoor-land, back again to live.

Why don't you plan to see this city? Come out this winter or next summer. Study the opportunities that San Francisco offers. And play in the great vacationland it centers.

Send the coupon for two vastly interesting, illustrated books.

The opportunity that San Francisco offers business men is varied. Here cocoa beans are being ground. A mile away you'll find a great steel manufacturing plant; a mile in another direction—the "Wall Street of the West"

CALIFORNIANS INC., DEPT. 1310
703 Market Street, San Francisco

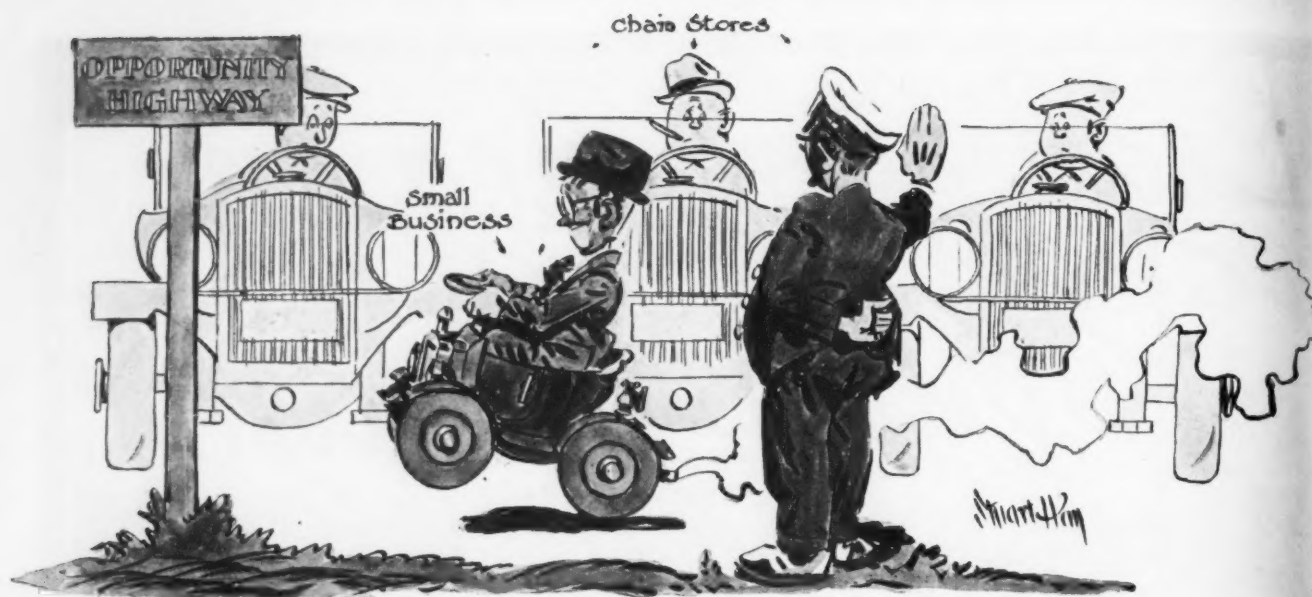
Please send me the free books "Why Manufacturers Choose San Francisco" and "San Francisco—Where Life Is Better."

Name.....
Address.....

FRANCISCO

—"WHERE LIFE IS BETTER"

Inc. please mention Nation's Business



To have prosperity we must give every able merchant a chance to get in business for himself

The Small Retailer's Real Problem

By J. A. EDGAR

President, Frankford Grocers' Association, Frankford Grocery Company, Unity Stores Association

CARTOONS BY STUART HAY

● Who is to blame if the independent grocer falls by the way? An experienced executive offers his opinion

ALL THE intelligent, independent retail grocer wants—all he deserves—is an even break. His main problem is not the chain stores. It is not mass buying, nor low prices. As in all lines of business, from the smallest retail shop to the largest manufacturing plant, the principal problems of the independent grocer hinge on management and opportunities.

Nothing could be more disastrous to the country than the closing of opportunities for the conduct of small business. We cannot have continuous prosperity without giving every able and ambitious merchandiser an opportunity to get into business for himself.

In this, the manufacturer assumes a large part of the responsibility because he has the privilege of selecting his avenues of distribution. It is to his own interest to distribute his goods equitably

and to select channels that will serve the public best.

However, everybody now seems to appreciate that the independent retailer is an important factor, especially in the food lines, and that he is necessary for the success of the independent manufacturer. Apparently, also, everybody wants to see him survive. We hear a great deal about broadening his opportunities and because that is the business of our three organizations so many requests for information have come to us that we have not been able to answer them all. Our mail shows an unusual interest

among manufacturers, wholesalers and others who want to help the good work along.

In this offered assistance there is a great deal of chasing around in circles and rushing up blind alleys. Many of the manufacturers who say they want to help the independents will adopt any scheme that promises more sales, but will not establish their merchandising on fair and economic principles.

Consider, for instance, the matter of price. We hear that the chains have an economic advantage because of their large buying power; but we frequently find that a manufacturer is asking us a higher price than he is getting from chains.

Then we get the lowest price or we push other goods. Although price is not a major problem, it is



Secret deals increase food distribution costs

For the *FIRST TIME* a *TRUE-FIGURE* **ELECTRIC CALCULATOR**

for only
\$350

In these highly competitive days no business that depends on figures can afford to use old fashioned, pencil-pushing methods. Now no concern needs to! For here is a **full-size standard** Marchant Electric Calculator for only \$350!

A compact, sturdy machine that will stand up under the hardest drive of figuring, and do it in 25% to 40% less time.

Has the famous Marchant straight-line check dials—factors and result visible in easily read, correctly spaced figures—

True figures, not complements, thus permitting short cuts that save 40% of operations.

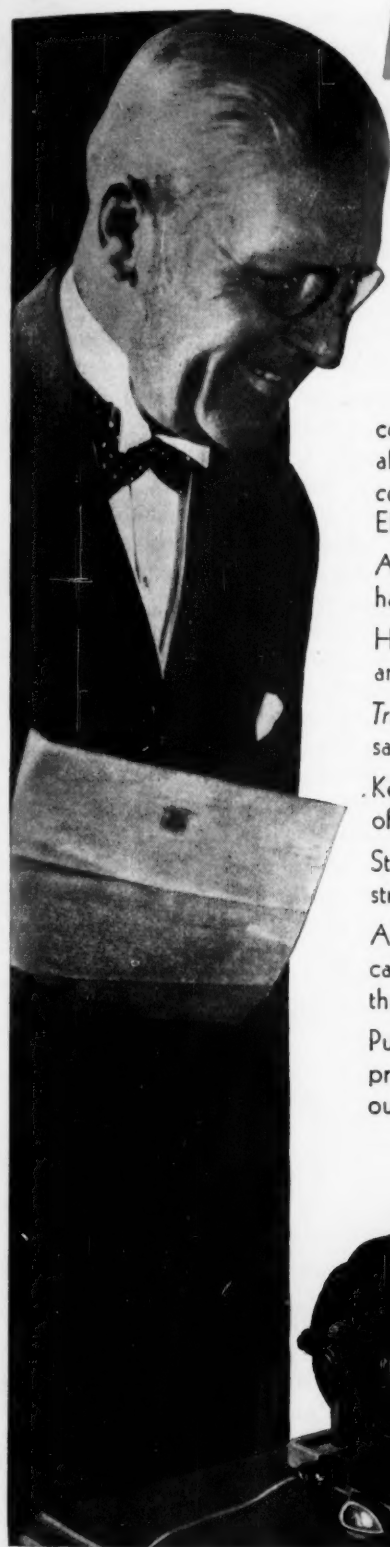
Keyboard automatically locked while operating—no danger of accidentally changing keyboard set-up.

Standard spaced keys, too—large, easily found—lessen eye-strain and fatigue.

Automatic stop controls, smooth-sliding carriage, one-hand carriage release and many other valuable Marchant features that combine absolute accuracy with greatly increased speed.

Put your figuring on a modern high speed, profit-increasing basis at small cost. Phone our local representative or use the coupon.

"But really, Mr. Marshall, it's the machine itself that makes such wonderful speed possible. Every feature is specially designed for fast work—these true-figure dials, for instance."

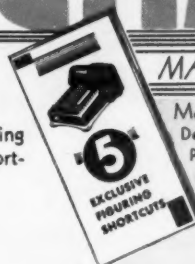


MARCHANT *ELECTRIC* Calculator

Adds · Subtracts
Multiplies · Divides

17 years building calculators, nothing else... Electric, hand operated and portable models as low as \$125.

Sales and service offices
the world over.



MAIL the coupon for full information... **FREE!**

Marchant Calculating Machine Co.
Dept. 182, Oakland, California
Please send me full information about the \$350
Marchant Standard Electric Calculator

COPYRIGHT 1930
MAR—GDS

Name _____ Firm _____
Address _____ City and State _____



Poorly managed stores are a liability in the food business

obvious that price discrimination is a serious handicap to independent distribution. The independent must have an even break as to price, or his opportunities are seriously restricted.

But our associations find that many manufacturers who profess to believe that the independent retailer is essential to their success are discriminating in price, and behind this practice there is a big fallacy that must be cleared away before anything worth while can be done toward eliminating waste in food distribution.

During the last ten years manufacturers have sold many hundreds of millions of dollars' worth of foods to mass buyers at concessions that had no economic justification. This encouraged the development of the "loss leader" in retailing, and I know of nothing else that has so demoralized food merchandising. In this, the fallacy of the advantages of the mass order has misled manufacturers. In giving uneconomic price advantages to mass buyers they have closed opportunities for both the independent retailer and themselves.

Short-lived secrets

MANY manufacturers of trademarked goods seem to think that mass orders are worth all they cost, and that any unfavorable reaction can be avoided by shrouding the transactions in mystery. There never was a greater fallacy. The average life of a secret in the grocery business is about three days. Secret transactions are burdening distribution with many unnecessary costs. If manufacturers

honestly want to give independents an even break they must adopt equitable policies and make the same prices to all for the same quantities and merchandising service.

If manufacturers continue to sell mass volume with concessions, it won't be long before practically all grocery orders are placed on a mass basis.

The Frankford Grocers' Association was organized in 1888. Its fundamental purposes were to combat trade evils, encourage social activities among its members, and to collect bad

debts. In 1891, I joined the organization as a collector, and soon became its secretary and manager.

The next year we found that a demoralizing trade evil had developed in the form of cut-prices by competitors who owned small chains. An investigation showed that these operators were buying for cash from wholesalers at prices that were sometimes 30 per cent below the quotations made to our members. Evidently the wholesalers thought they could take this mass business and retain the trade of the independents, and the same fallacy still persists in the minds of many. The wholesalers had

taken away our opportunity to compete on an equitable basis and for the purpose of buying and distributing to our members we organized what is now called the Frankford Grocery Company.

Started on a small scale

WE HAVE always had a good deal of sympathy for the little fellow, because we started in the wholesale business with a capital of only \$500. Fifty members of the Association were willing to back the venture; but only 12 of them had confidence enough to put up any money. They pledged \$12 each, payable at the rate of one dollar a month. But the 50 charter owners of the Company agreed to pay weekly for the goods they bought, so we were able to pay our bills promptly.

The Company soon demonstrated that it could buy as cheaply as the wholesalers and sell to our members at a much smaller spread, and soon all of the association members were stockholders in and customers of the buying company. At that time, the company stock sold at par, \$10 per share, and now it is worth \$80. When new members come in they are given the opportunity of buying not more than \$500 worth of stock which they agree to sell back to the Company at the rate of \$50 a share plus half its book value, when they leave the Association.

Many buying associations have shown that it is impracticable to sell



Frequently we hear that a manufacturer is asking us a higher price than he gets from chains which buy less

stock without the return contract. When this is done it tends to dissipate interest and finally to place the organizations in the hands of men who are no longer retail grocers.

We have also avoided the mistake of procuring volume for volume's sake. Many associations will sell any retail grocer, including chains, believing that lowered costs due to larger volume justify the practice. We always have contended that selling nonmembers at prices quoted to members is a disadvantage to members, and although we sell to outsiders we charge them more.

Our members are charged a small initiation fee and annual dues. They agree to keep their stores clean, their stock attractively displayed, and to adopt our general advertising and merchandising plans. Our merchandising manager studies the problems of individual members, and provides the entire membership with weekly and monthly campaigns. We give our members the opportunity of merchandising their goods as effectively as any chain competitor.

Poor stores are a liability

OUR members would be able to serve the public better, however, if it were not for the competition of poorly managed stores of all sizes. Such stores are the greatest liability in food distribution. As a rule they are insufficiently capitalized and unsanitary.

Food manufacturers and wholesalers are mainly responsible for this competition. The manufacturers get their goods into the stores by means of free deals and selling schemes in their effort to swell volume at any cost. The wholesalers, imbued with the same ambition, extend them liberal credit and press goods on them. As long as these mismanaged stores are supported in this way, the proficient independent will find them a most serious handicap.

Our three organizations stand for liberal cooperation, sufficient capital, proper management, and adequate advertising among independent retail grocers. If a retailer is not willing to adopt these factors, we do not consider him worthy of the opportunities we extend.

Although there has been a great deal of discussion of the burden of distribution cost due to small stores, our experience shows that the little fellows have no corner on mismanagement. Many of our members conduct small stores and they know how to run their business. We do not want a grocer who will buy only about \$15 worth of goods

a week from us and scatter the rest of his business among half a dozen wholesalers.

The opportunity principle is operative throughout our organizations. In our offices we employ 26 young women and two of them are officers of the Company. They were all trained in our offices, and we never have taken an employee away from another organization. Most of them are bill clerks and order-writers. They are paid by the piece with penalties for all errors. They make good money, and the more they make the better we like them. Consequently, our employee turnover is practically nothing.

In our warehouse, the men who put up orders are also paid by the piece, and the top man makes about \$43 a week. The average of the others is \$27 a week. We guarantee drivers \$25 a week, pay them 30 cents per \$100 for deliveries, and several of them make as much as \$50 a week.

All salesmen and supervisors draw salaries for we do not pay them on a basis of volume. Their work is to distribute merchandise in a manner that will pay the best return to our members and we give them an opportunity to increase their earnings by a system of weekly bonuses. They also specialize on certain products under a form of sales service for manufacturers.

Our policy is to determine the value of every detail and process of the business, and then pay our people what their work is worth.

Good outlet for specialties

FOR the manufacturer who conducts his business on fair and economic lines, we not only offer a complete and well organized outlet, but also introduce his goods to our members more cheaply than he can do the work. We have eliminated waste in specialty selling. Our seven salesmen call on our members every two weeks. They take practically no orders for general groceries, since all of our members are educated to mail or bring their orders, and they devote nearly all of their time to specialty selling covering our members every two weeks.

Each two-week period our salesmen are given samples of four items from one or four manufacturers. These are the only samples they carry. They are advised of all selling points, the policies of the manufacturers, and all national and direct advertising behind the goods. They sell the items just as effectively as any manufacturer's specialty salesmen could do the work, and for their service the manufacturers pay us 12 cents per call per item.

Last year we received \$16,551 from manufacturers for this service, and we paid our four specialty salesmen \$16,807 in salaries and bonuses.

Because of the cooperation of our members, our wholesale company is able to operate on a gross margin of five per cent plus cash discounts. This margin defrays all our distribution expense and contributes steadily to our reserve fund. Our volume is limited practically to our own members, 98 per cent of whom are located within a radius of five miles from our wholesale house.

Closer cooperation needed

IF THERE is any applicable economic practice that we do not apply in getting groceries from the producers to our members, I do not know what it is. After 38 years of experience in grocery distribution, I am convinced that the only way in which costs can be further reduced and service improved is by closer cooperation between manufacturers and their wholesalers with the motive of encouraging sound retail methods. Our operating overhead for 1929 was .0310.

There are no more good retail stores of every kind than the public wants, and the public is quick to reward that merchandising service which is the best balance between convenience, attractiveness and economy. These facts are not recognized as they should be but their importance is emphasized to us every day, and especially in the management of our Unity Stores Association.

This organization is made up of more than 200 members of the Frankford Grocers' Association who have proved that they are entitled to the best opportunities we can offer. Every Unity grocer is hand-picked.

His store is literally taken apart and put together again to conform to the best scientific plans and attractive decoration we have been able to devise. He signs an agreement to adopt all Unity rules of management and to use all the advertising and merchandising material sent him, with the understanding that failure to do so will cause him to forfeit his membership.

He pays the cost of remodeling his store. He also pays an entrance fee and quarterly dues, besides the cost of all material provided. We merely lend him the full support of our organizations, with equitable prices and the means of meeting merchandising competition, and the opportunity to serve the public in a manner that will build up his business.

Ready for Occupancy before Cold Weather



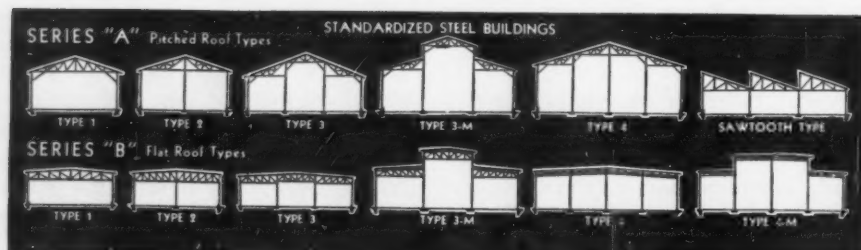
TRUSCON STANDARDIZED BUILDINGS

You would scarcely believe how quickly a Truscon Building can be up and ready for your use. But speedy occupancy is only one of the outstanding features of these fine buildings. You also get a building individualized to meet your needs and at surprisingly moderate cost. This building is modern, firesafe, attractive. You can have flat or pitched roof type—monitor or sawtooth. You can have side walls of any description and Steeldeck roofs insulated to any degree and waterproofed with standard roofing. The entire building is built of standard units, manufactured in Truscon plants and partaking of the economies of standardization and large scale production. Truscon co-operates fully with your architect and contractor.

Send for the Truscon Building Book. It explains fully.

TRUSCON STEEL COMPANY Youngstown, Ohio

Engineering and Sales Offices in Principal Cities, Main Plant in Youngstown. Factories in Cleveland, Detroit, Los Angeles and Japan. The Truscon Laboratories, Detroit. Foreign Trade Division, New York; Truscon Steel Company of Canada, Limited, Walkerville, Ontario.



When writing to TRUSCON STEEL COMPANY please mention Nation's Business

Making Men Into Merchants

(Continued from page 46)

manager. Our managers select the merchandise for their own stores. The chain store provides the right physical layout and the financial resources for the store. It places at its managers' disposal specialized information. It leaves the managers free to merchandise their stores which, I take it, is the particular thing that a real merchant wants to do.

Chain-store managers are censured because they don't contribute sufficient time or money to community needs. In our own chain the question of money contributions is handled by the individual manager within reasonable limits. He is free to take his part, in accordance with the store's volume, in helping the various community projects. We feel that our managers are community-minded. Practically all of them are members of the local chamber of commerce and of local service clubs. Thirty per cent of our managers and associates are directly interested in their communities because they own their own homes.

In the final analysis, a store is the direct reflection of the individual merchant. The real reason why you do or do not trade in a store is the kind of value and service that you get there.

No check on individualism

WE HAVE no quarrel with the individual who prefers to operate his own store. There will always be room and plenty of it in this country for this type of man. If he has the ability, the resources and the necessary energy, he will succeed alongside of the chain store, the mail-order house, the big department store, the direct house-to-house salesman or of any other type of competition. But we do have a place in our system for this same man and, the greater his natural ability, the greater his opportunity with the chain.

For every merchant who has felt himself shackled by the methods of a chain store, you can count hundreds who are proud to credit their success to their association with, and their development in, a chain store. You can count an even greater number of independents who have profited from the teachings of their chain-store competitors so that their stores are more profitable to them and better servants of the community.



Sound, Steady Development

Even its best and oldest friends have been surprised at the rapid rise of International Harvester in the automotive world. The gains in International Truck production and in International registrations throughout the United States have been outstanding.

There is nothing artificial or temporary in this success. It would, in fact, be hard to cite a better example of sound and steady development in American industry and business than this rise of International Trucks. The truck-building knowledge accumulated since 1904 is apparent in each succeeding year's output of Internationals. Constantly improving de-

sign, rigid quality standards, and a forward-looking service policy—all have contributed to the growing reputation.

Today the rising preference for Internationals forms as reliable a gauge as you can get of truck values. The proof of the pudding is in the eating, and the proof of the truck comes out on the job. It is impossible to do what International trucks are doing without being good.

Visit any company-owned branch or any dealer and see the new lineup of Speed and Heavy-Duty Models. They fit all hauling needs and a demonstration will gladly be given.

The illustration shows the new International Model A-5, 3-ton, 6-cylinder Speed Truck. The chassis is adapted for an unusually wide range of service from high-speed transport to dump-truck work.



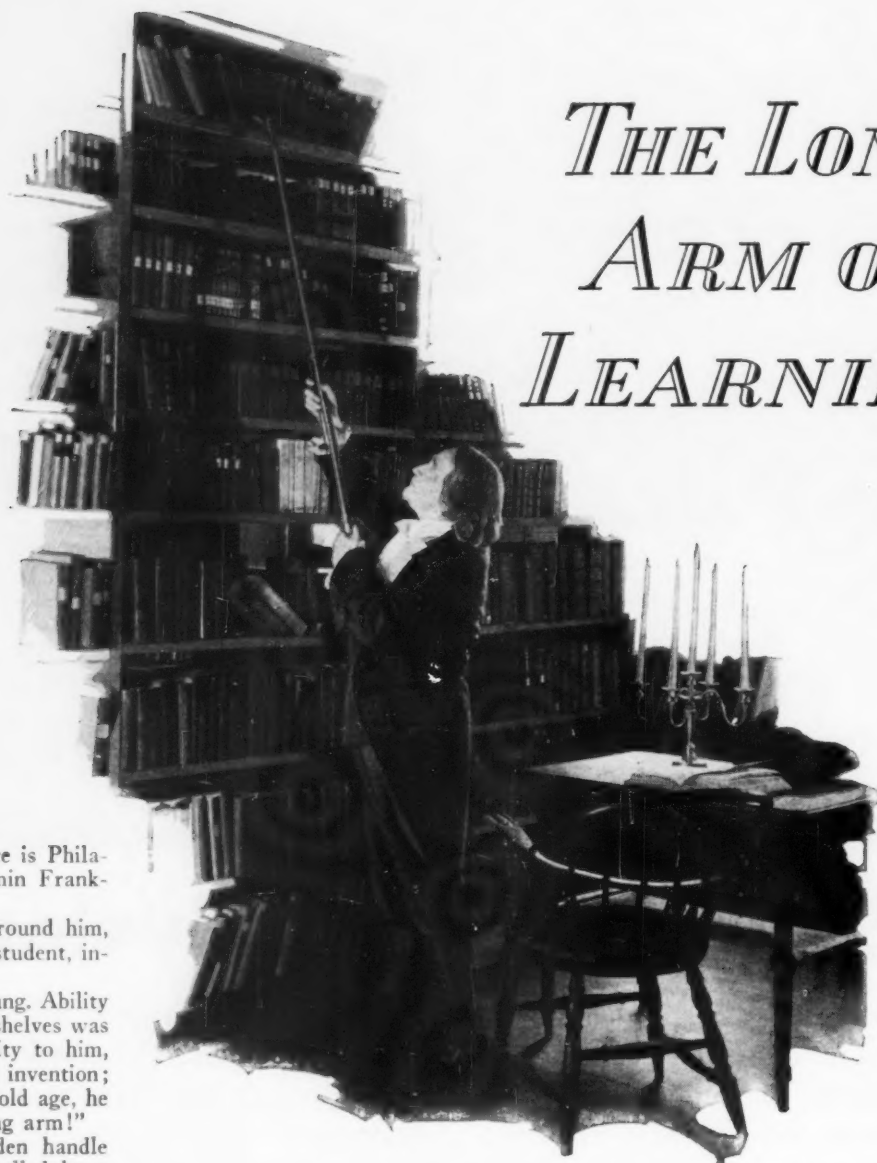
International Trucks include the $\frac{3}{4}$ -ton Special Delivery; the 1-ton Six-Speed Special; Speed Trucks, $1\frac{1}{4}$, $1\frac{1}{2}$, 2 and 3-ton; and Heavy-Duty Trucks to 5-ton.

INTERNATIONAL HARVESTER COMPANY
606 S. Michigan Ave. OF AMERICA (INCORPORATED) Chicago, Illinois

INTERNATIONAL TRUCKS

When writing to INTERNATIONAL HARVESTER COMPANY please mention Nation's Business

THE LONG ARM OF LEARNING



THE YEAR IS 1787. The place is Philadelphia. The scene is Benjamin Franklin's library.

Bookcases, rising high, surround him, this homely philosopher, this student, inventor and patriot.

Franklin was no longer young. Ability to reach books on the higher shelves was a constant challenge. Necessity to him, indeed, was the inspiration of invention; and to defeat the problem of old age, he conceived and executed a "long arm!"

This "long arm"—a wooden handle with two hinged clasps controlled by a simple pull of strings in the fingers—was extraordinarily simple. The invention was a sensation in its day. Men came hundreds of miles to inspect it, to watch Franklin demonstrate it in his library.

Today, throughout the world, thousands of men are reaching for—and securing—the training and knowledge to master their present jobs and equip themselves for the opportunities ahead.

From the Americas, from the Orient, from Europe and the far-away places of the earth, these men are using the "long arm" of enrolment with the International Correspondence Schools to reach the training they most need!

Franklin devised the "long arm" to secure books he could not otherwise reach. These men, in many cases deprived by various circumstances of academic and technical training through ordinarily accepted channels, find in I. C. S. enrolment

and instruction the expert tutelage and practical education needed to make good.

Others, university trained, extend the reach of their experience by I. C. S. study. Its student body embraces the world, all classes of ambitious men.

In its 39 years of existence, nearly 4,000,000 men seeking training have reached to this Universal University, which today provides 241 standard courses and scores of special courses, covering practically every business, technical and engineering subject. These courses are prepared and revised by more than 1500 authorities, each a recognized leader in his respective field. I. C. S. branch offices are maintained in many capital cities the world over.

Observe the I. C. S. students in your own organization. If you do not already know them, it will be to your advantage to look them up, for you will realize that they are earnest students of your business and studying, in most cases, to make themselves more valuable in its conduct.

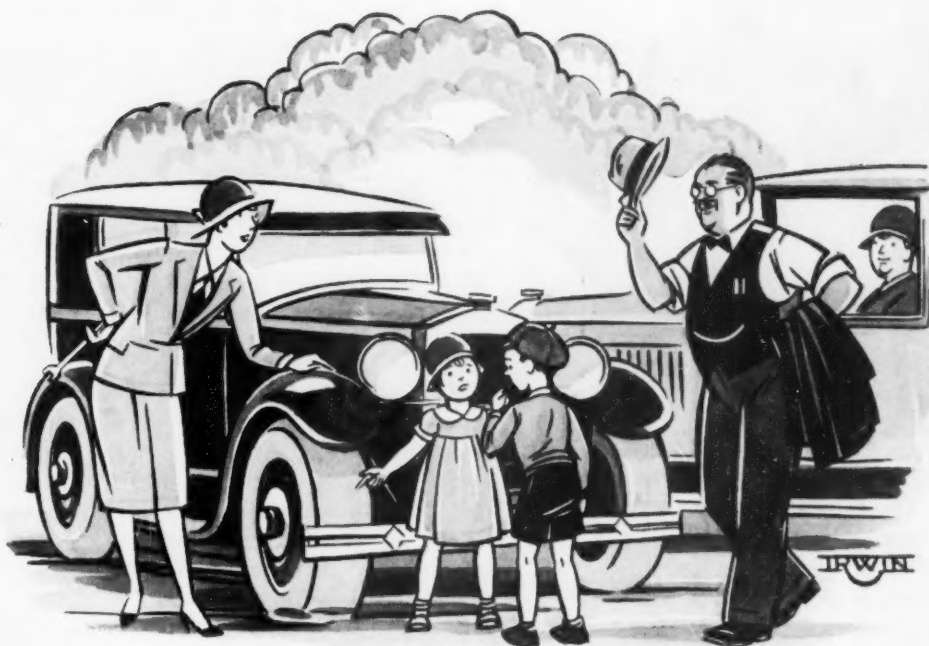
By encouraging them, you will be making an important investment in your own present and future success! This is the reason that more than 2300 leading business organizations and 355 railroad companies have arranged with the International Correspondence Schools to supply training for their employees. We will be pleased to mail, upon request, our booklet, "The Business of Building Men."

INTERNATIONAL CORRESPONDENCE SCHOOLS

FOUNDED 1891
SCRANTON, PENNSYLVANIA

MEMBER, NATIONAL
HOME STUDY COUNCIL

When writing to INTERNATIONAL CORRESPONDENCE SCHOOLS please mention Nation's Business



The stranger shed his coat. "Let me help you," he said

How to Make Your Town Grow

By CARL GOERCH

Publisher, the Washington, N. C., Progress

ILLUSTRATIONS BY J. D. IRWIN

This simple formula doesn't cost a cent but
its author guarantees results

GIVE me the whole-hearted, sincere cooperation of about 200 of its citizens and I'll guarantee to make any average small town one of the most talked-of and most popular places in the United States. And it won't cost anybody a penny, either. Not a single, solitary cent.

Most towns with from 5,000 to 15,000 population are constantly watching for publicity that may attract new residents, new business establishments or new manufacturing enterprises. Many dollars are spent on this kind of publicity. Attractive booklets are issued and advertisements are inserted in various publications. Impressive signboards are located at strategic places. Comprehen-

sive displays of some of the leading assets are shown at fairs, conventions and industrial exhibitions. Various other methods are employed, most of them well worth while and all of them rather expensive.

But I'll guarantee my plan to be more effective than any of these.

Let us suppose—just by way of illustration—that the president of the Chamber of Commerce in Utopia, Ohio, sees this assertion and decides to send for me to ascertain what it is all about. I pack my bags and hustle off to Utopia



"Good morning," said a cheery man in a doorway

as fast as I can. The first thing I'd do would be to call a meeting of about 200 men. Utopia, let us say, has a population of 10,000. I announce that the meeting is to take place on a certain night and I insist that nothing can be done unless 200 men attend. I take special pains to make it clear that men from all



The mechanic made the simple repairs but would take no pay

walks of life are wanted—business and professional men, clerks, salesmen, farmers and laborers. In the event I failed to get my crowd, I would immediately bid a regretful but firm farewell to Utopia and hie myself to other parts.

However, Utopia is a fairly progressive town and my men come to the meeting. The president of the Chamber of Commerce introduces me and I get up to make my little talk:

Courtesy is good publicity

"I'M going to make a very brief speech. Our endeavor is going to be to make Utopia the most popular town in the country. No money is to be spent to bring this about. I ask you men to do only two things. The first is to speak to every stranger you see in town and the second is to be on the lookout for any service you might be able to render him. That is all I have to say, except that I hope everyone will try and cooperate to the fullest extent, providing that you decide to accept my plan."

Then I take my seat. Probably there will be a rather embarrassing pause, during which the president of the Chamber of Commerce leans over and whispers:

"Aren't you going to say anything else?"

"There's nothing else for me to say."

He looks at me as though unable to grasp the situation. I see the same bewilderment on the faces of many of the men in the audience, and it is evident that they haven't quite comprehended what it is all about.

"Aren't you going to appoint any committees?" some one asks.

"We don't need any committees," I assure him.

"What about funds?"

"I've already said that there would be no necessity for funds. There will be nothing for which to spend any money. You claim you want to boost Utopia. All right, here is your chance. You won't have to attend any meetings or banquets, nor will you have to go to any special trouble. There will be no 'drives' or intensive

you and everything will take care of itself."

And I am confident that if the citizens of Utopia conscientiously try to follow this plan they will be more than satisfied with their campaign. At the end of two months, the name of their town will be on the lips of thousands of persons in all parts of the country. When some particular town is mentioned as being a fine place to live, the chances are that some one present will announce enthusiastically:

"But you ought to visit Utopia! There's a real town for you. Finest folks in the world. I was there a short while ago and I'm looking forward to my next visit. One of these days I'm going to buy me a house there and make it my home."

It's a proven formula

"WHAT makes you so confident?" someone rises to ask. "What have you got on which to base your opinion?"

That's a fair question. All I can say is that I have had personal experience and know of numerous instances which have convinced me that if some town were to adopt a program like the one I have outlined it would produce excellent results. Unless I am much mistaken, you, yourself, have had one or more experiences which warrant your endorsement of the proposition.

Some time ago I was in Waxahachie, Texas. I had to spend a couple of hours there. After I had transacted my business I walked down the principal business thoroughfare.

"Good morning, sir!" said a cheery voice from the doorway of a store.

I looked around in surprise and met the glance of a rather pleasant looking man.

"How do you do!" I returned, as I continued up the street. Then it occurred to me that he probably had mistaken me for someone else.

"Good morning!" came the cordial voice of an elderly man going in the opposite direction. He waved his hand and smiled. I returned the salute and also the smile.

"How are you?" was the expression that accosted me a few steps further along.

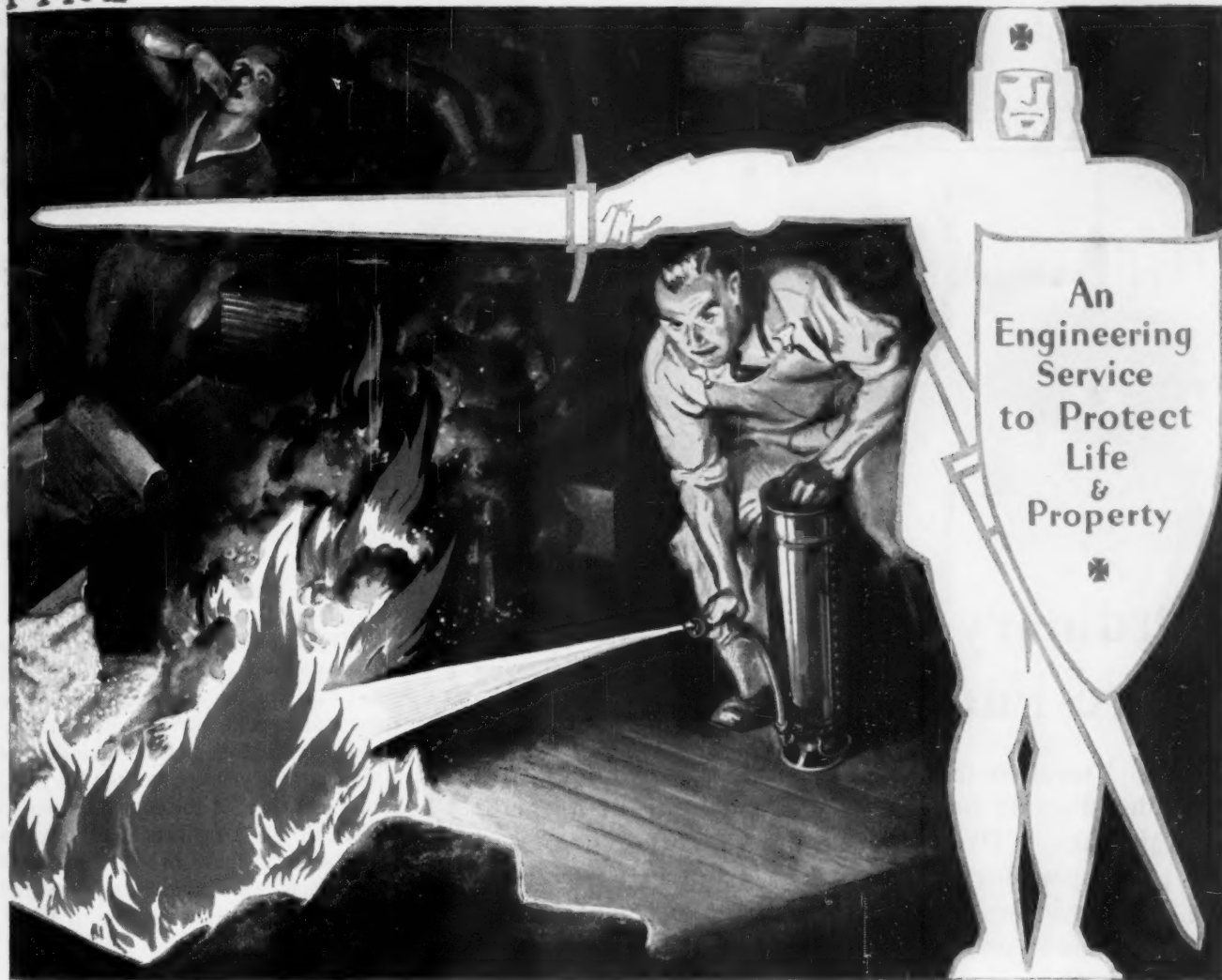
"Nice morning!" greeted another voice.

And so it went on. I



The natives went out of their way to be of service because they liked the visitor

FIRE — AN INCIDENT OR A DISASTER ?



Lives, buildings, profits all hung by a *fiery* thread!

Soft and silken and sheer, the lustrous garments flow thru the machines . . . stand ready to be packaged. Quick, deft, feminine fingers fold the garment here, turn a corner there. Suddenly a shriek shatters the busy hum! Chairs are pushed over. Fire! But, the service symbolized by the LaFrance and Foamite Crusader is on guard. Quick work with a handy fire extinguisher of the right type and size changes what might have been a disaster into an incident.

This service is safeguarding tens

of thousands of industries and public buildings against fire. It is based on facts—not guesswork.

It starts with a detailed survey of the fire hazards of your property by our trained fire protection engineers. Based on this survey, we submit complete, unbiased, written recommendations for safeguarding your business. Unbiased—for this company makes every recognized type of fire-extinguishing equipment—from one-quart hand extinguishers to large motor-driven fire apparatus.

Maybe your business is textiles, or a department store, or a wood-working shop—whatever it is, whatever its size, La France and Foamite Service can show you the way to safeguard it from fire. Write for one of our representatives to call—without obligation.

AMERICAN-LA FRANCE and FOAMITE CORPORATION, Dept. D70, ELMIRA, N. Y.

Offices in all principal cities



"Correct Protection Against Fire" is a booklet describing our service and protection. A free copy will be sent you on request.



LA FRANCE AND FOAMITE PROTECTION

AN ENGINEERING SERVICE

AGAINST FIRE

When writing to AMERICAN-LA FRANCE AND FOAMITE CORPORATION please mention Nation's Business

UNLOADING TEN TONS OF COAL A MINUTE



Ordinary Handling Methods Are Far Too Costly Today

Visualize this bridge crane, 437 feet long and handling 10 tons of coal at each bite of its giant bucket. Two hundred and seventy-five tons of coal per lineal foot of dock front can be stored under its long span and the crane averages a trip a minute in unloading coal from vessels into storage.

Building heavy dock machinery to handle enormous tonnages of coal or ore requires a high degree of engineering and manufacturing skill. Industrial Brownhoist, the originators of this equipment and pioneer manufacturers of locomotive cranes, has been largely responsible during the past fifty years for the rapid improvement of these two classes of machinery.

The engineering ability which has helped make Industrial Brownhoist a leader in the material handling machinery industry is available to anyone interested in lowering production costs through improved handling methods. That we have been successful in doing this for users of our cranes is proved by the high regard in which the name Industrial Brownhoist is held, wherever its equipment is operating.

Industrial Brownhoist Corporation, General Offices, Cleveland, Ohio

District Offices: New York, Philadelphia, Pittsburgh, Detroit, Chicago, San Francisco, New Orleans
Plants: Brownhoist Division, Cleveland, Ohio; Industrial Division, Bay City, Michigan;
Elyria Foundry Division, Elyria, Ohio

INDUSTRIAL BROWNHOIST

When writing to INDUSTRIAL BROWNHOIST CORPORATION please mention Nation's Business

imagine that at least 20 men spoke to me. By the time I got back to the station I felt as though I owned the town. I had gotten the impression that the people of Waxahachie were glad I had come to their town and appreciated my being there. During the last couple of blocks of my stroll, I threw out my chest, worked up a pleasant expression and did a little greeting on my own account without waiting for somebody to get the start on me.

I hated to leave Waxahachie. I don't know whether it was just a coincidence that those people spoke to me; whether I resembled someone of their acquaintance, or what the reason was for their cordiality, but it certainly made me feel good. To this day, Waxahachie stands out to me as being one of the grandest towns in the country.

Courtesy is appreciated

YOU'VE probably been in a strange place yourself and have had some person greet you as he passed. Whether he did it to be polite or whether he thought you were someone he knew did not alter the fact that you appreciated the greeting. And then, if someone else were to speak to you a moment later, followed by the same thing two or three times more, don't you believe you would feel just like I did that morning in Waxahachie?

I think you would.

Suppose my 200 friends in Utopia were to start out on their campaign of greeting every stranger. Can't you imagine the tremendous effect it would have on visitors to the town? Can't you imagine how you, yourself, would feel if you were accosted on every side by friendly voices and pleasant smiles?

It's funny that no town ever has embarked on a campaign of wholesale courtesy. Nothing costs less or pays greater dividends.

Raleigh, N. C., has a prominent citizen who is head of a large retail business there. He formerly lived in Salem, Mass. About eight years ago his wife and two small children were driving through North Carolina on their way to Florida. He had been detained in Richmond and intended to make the rest of the trip by train. They had a puncture near the outskirts of Raleigh. Climbing out of the car, the woman gazed at the flat tire helplessly. She did not know how to go about changing it, and the children were too small to be of any material help.

"Let me help you, madam!"

Another car had slowed up. A man and woman occupied it. The man was

getting out. He shed his coat, rolled up his sleeves and got to work. His wife invited the other woman and the children to sit in her car while the tire was being changed. They chatted pleasantly and when the new tire finally had been put on, the Raleigh folks invited the tourists to stop at their house for a few minutes and rest before continuing their journey.

The invitation was accepted. The visitors remained with their hosts about an hour and were delighted with the courtesy extended them. Then they resumed their trip. When the woman's husband joined them two days later, she told him about the way she and the children had been treated in Raleigh. On the return trip, they stopped off in the North Carolina city to express again their appreciation and thanks to the couple who had befriended them.

The Salem man was taken over the city. He was impressed with it, and the next year he opened a large business there. He and his wife are living in Raleigh and built a handsome residence there three years ago.

Courtesy pays dividends

YES, indeed; courtesy pays dividends. Usually the dividends are entirely unexpected and come in an unforeseen manner, but they come, directly or indirectly.

There is a millionaire who used to spend his winters in my home town, Washington, N. C. His home was in Providence, R. I. A number of years ago a local jeweler had shown him some trivial courtesy. The millionaire appreciated it. While on a cruise down the Atlantic coast, he sailed his yacht to Washington to spend a day with his friend. He was introduced to many of our people. They liked him and he liked them. For 12 years thereafter he came to Washington every winter.

A wealthy magazine publisher from New York came to Currituck county, N. C., on a hunting trip. Currituck is in the extreme northeastern section of the state. He met some of its citizens. They were in a position to extend him several little courtesies. As a matter of fact, they went out of their way to be nice to him. Not because of his wealth—for wealth meant nothing to them—but because they liked him.

He made several other trips to Currituck and it wasn't long before he became keenly interested in the county. He built several fine schoolhouses and established the finest educational system to be found in any county in North Carolina. Many of his friends also began coming down. Some of them built



NO MOTOR Ever Stood Such Punishment Before

RECENTLY a furnace manufacturer gave us an apparently simple order. He wanted a motor-driven fan which, incorporated in his product, would "blow" an equal flow of heat through the hot air ducts, thereby maintaining an even temperature throughout hard-to-heat houses. An ordinary electric fan would do the trick, he said, and so it would—*theoretically*. But we foresaw practical difficulties—furnace heat, soot, vapors—that would ruin in a few months the sturdiest motor ever built. Never in three decades of building special application motors had we faced more difficult a task. We went into a huddle, combined inspiration with experience, and starting from scratch, evolved a new motor—a veritable salamander with *heat-proof* bearings, windings and insulation—a *soot-proof*, *moisture-proof* motor that will keep chill north rooms cozy for years to come, adding immeasurably to the reputation of our customer's good furnaces.

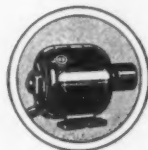
If you have a problem in electrical-motored machinery come to Robbins & Myers. We offer you the facilities of a completely modern plant and the experience of 32 years' precision manufacture in designing, building and applying electric motors, generators, fans and electrical appliances

Robbins & Myers, Inc.

Springfield, Ohio

Brantford, Ontario

1878



1930

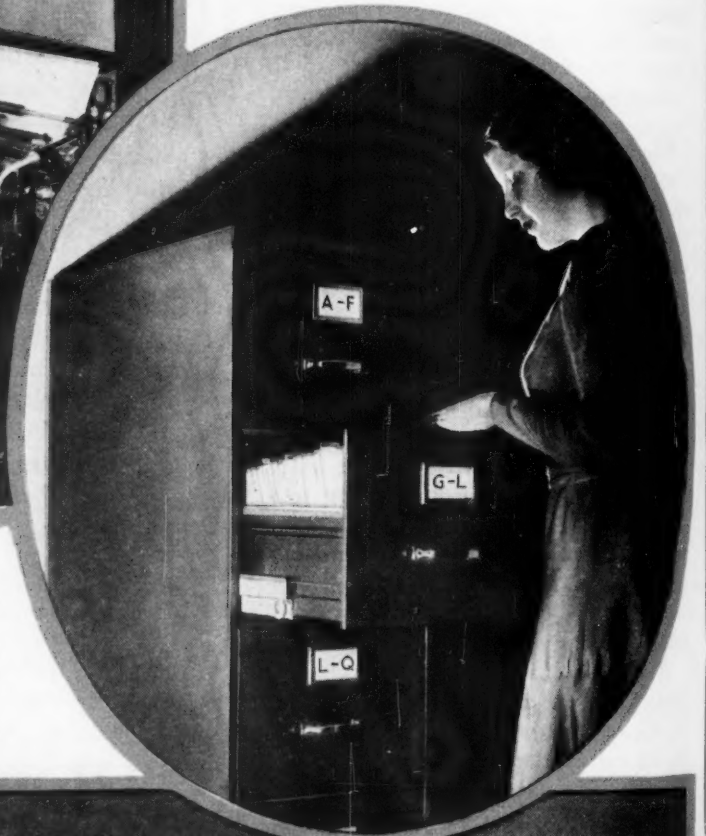
FANS, MOTORS, HAND AND ELECTRIC HOISTS AND CRANES

Quick Savings-



Cut 22-1/2 Salary Hours a Day

A big transport company says "With the Remington Accounting Machine, one clerk in 1 1/2 hours a day does the work formerly done by three people working full time . . . thus paying for itself several times over in its first year of use."



Saves 25% Floorspace—at a Stroke

A large insurance company wanted to cut its home office overhead without any slowing up of work or impairing of efficiency. Remington Rand studied the problem...showed them a better, faster filing system that required much less floor space. As a result, rent was cut 25%. The new method paid for itself in 8 months . . . then paid a monthly profit.

Halves "Frozen Capital" in Half-Year

The toilet goods department of a New England store installed Kardex Merchandise Control. In six months it had decreased invested capital in stock by one-half. Yet more items were being carried. Turnover increased from 5 to 8 times a year.



When phoning or writing a REMINGTON

count Double this Year

How to make Quick Action Economies that will add to *This Year's* Earnings

"SHOW us how to make a quick saving" says the business man. "Show us how to straighten this out in a hurry . . . how to cut our overhead by the first of the year . . . and we'll be interested!"

Quick acting economy...that is the demand of the day. For with sales volume below par, quick savings assume a new and vital relationship with the earnings statement.

Remington Rand accepts such challenges. In most cases it is able to go even further than its clients dare hope. It is very often able to show cold cash economies *in as little as thirty days!* If this surprises you, remember that Remington

Rand's function at all times is to lighten labor . . . speed operations . . . eliminate waste with modern equipment, better systems, planned control. No other organization has such a wealth of experience from which to draw. It has made thousands of installations. It *knows* where savings can be made . . . and *knows* how to make them.

1930 isn't over yet. There is still time for fast working economies that will add to your this year's earnings. Call the Remington Rand man and let him explain how money saving methods can be paid for out of current operating expenses and the savings that will follow immediately.

Remington Rand

BUSINESS SERVICE

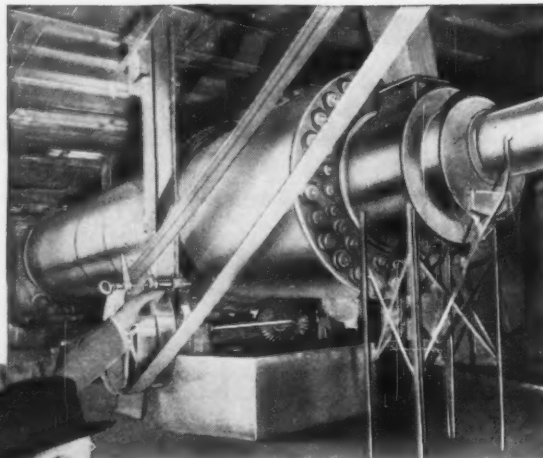
Executive offices, Buffalo, New York. Sales offices in all leading cities.

LIBRARY BUREAU Filing Systems and Indexing Service . . . REMINGTON Typewriters and Accounting Machines . . . INDEX VISIBLE . . . RAND & KARDEX Visible Records . . . DALTON Adding and Bookkeeping Machines . . . KALAMAZOO AND BAKER VAWTER Loose-Leaf Equipment . . . SAFE-CABINET Record Protection Devices . . . POWERS Accounting Machines

RAND office please mention Nation's Business

"It cut our drying costs

61%



and we once thought
a rotary dryer could
not handle our product"

The savings in labor, fuel, power and floor space effected by Louisville Dryers are lowering drying costs on bulk or heavy materials in many cases from 40% to 80% in more than one thousand different plants. Scores of users, who once thought Louisville Dryers could not economically handle their product, have been amazed at actual results. The savings in many cases have paid for installations in less than one year. Speedier production and a better product are other advantages. Dried materials are delivered automatically without interruption as fast as needed. No costly trucking or rehandling. In face of the trend to lower prices, can you afford not to investigate the outstanding performance of Louisville Dryers?

An Analytical Survey Without Cost to You

A Survey of your drying problems by our Drying Engineers will clearly indicate the costs and savings in terms of dollars and cents. Recommendations, if any, for improving your present drying operations, will be on a basis of assured economies. In availing yourself of this service and our 40 years' experience in this field, there is no obligation whatever. Send now for all the facts. Correspondence invited.

5 Possibilities in Cost Reduction

- 1 Cut your fuel bill—possibly from one-third to one-half.
- 2 Cut down the number of attendants—in many instances to part time for only one.
- 3 Save 50% to 75% of valuable floor space for other purposes.
- 4 Speed up production by affording uninterrupted operation of plant, because of continuous delivery of dried material.
- 5 And—give yourself a better quality product.

A Louisville Dryer Never Cost Any Buyer Anything

LOUISVILLE
DRYING MACHINERY
COMPANY.
Incorporated

455 Baxter Avenue, Louisville, Kentucky

Cable Address—LOUDRY, Louisville, Ky.

expensive hunting lodges. He contributed in other ways to the advancement and progress of that section, and today he has done more for northeastern North Carolina than any other man. All because he was impressed with the courtesy of its people.

Practically every town in the country has one or more visitors every day. No one appreciates courtesy more than a man who is away from home and among strangers. You probably know how it is from personal experience.

Small things build good will

THE act of any individual citizen of a town often causes a stranger to form a certain impression of the community as a whole.

I frequently drive from North Carolina to New York. Some time ago my car began to behave badly as I was passing through Morristown, N. J. I drove up to a garage and a mechanic came out to wait on me. After listening to my explanation of what I thought was wrong with the car, he lifted up the hood, tinkered with something for a minute or two and then looked up with a smile.

"All right, sir!" he announced. "Start her up now and see if she doesn't sound better."

The trouble had been repaired.

"How much do I owe you?" I asked.

"Not a penny. Glad to have been of service."

To have argued the point with him and to have insisted upon paying him probably would have given offense. I thanked him and continued to New York. Since then, I have passed through Morristown a dozen times. I always look forward to getting there.

Courtesy makes the world a whole lot brighter and it makes everybody a whole lot happier. It will do more to help build up a town than all the manufacturing sites, transportation facilities, salubrious climatic conditions, or any other resources you may mention. It doesn't cost anything, and that may be why so many folks ignore it as a valuable asset.

From the standpoint of personal profit, I would rather have my town known for the courtesy of its people than for its excellent paved streets, its power plant, its waterways, its lumber mills or any of its other good points. I believe that the cooperation of our citizens in a campaign of courtesy would be more valuable in a year than a hundred thousand dollars spent through the customary channels to give us publicity and advertising.

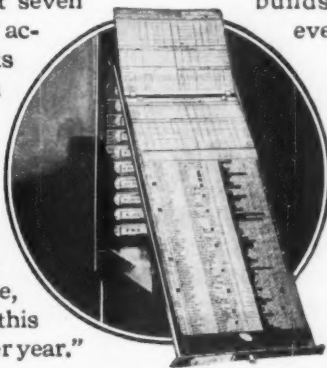
"Here's one investment that has never passed a Dividend!"



"A Profit builder! It's a fact, Davis, ever since we put in the Acme Visible Records, they've paid us an actual profit. I don't mean in payroll—although that saving alone more than paid for this equipment the first year—but I do mean in earnings and profits that have directly resulted from the application of the information these records have forced to our attention and action.

"This sales record on Acme Visible Equipment, was started in September, 1923, just seven years ago. Here's one of many new accounts opened last May. There are lots of them; but I am more interested in the older accounts that have continued buying on an even keel which denotes their prosperity and ours.

"This visible record has brought about a customer's service demanding expansion on our part that has enabled us to maintain our sales volume, employment, purchases and progress this year, comparable with last—our banner year."



During the past year, more than eighty per cent of Acme sales have been to users applying Acme Visible Equipment to additional records within their institution, prompted by accomplishments of this equipment on installations purchased over a period of years. In many cases the initial equipment having been installed as far back as fourteen years ago, when this product was first offered to industry.

Regardless of the size of a business and the number of records involved, Acme Visible Equipment, when applied to a single record, immediately builds profits. They do the same job for every kind of business.

The Acme Systems Engineer will welcome an opportunity to supply you with specific information and facts as to exactly what may be accomplished in your business towards turning expense and non-productive records into Profit Builders.

You should have our copyrighted book, published this year, "Profit Building Through Management Control." No charge, and no obligation.

Acme is the world's largest exclusive manufacturer of visible equipment. Offices in Principal Cities

ACME VISIBLE RECORDS

PROFIT BUILDERS OF MODERN BUSINESS

----- MAIL THIS COUPON TODAY! -----

ACME CARD SYSTEM COMPANY, 2 South Michigan Ave., Chicago

NB-10

☐ Without obligation, you may send me your book, "Profit Building Through Management Control." ☐ Have a systems man call for conference.

Name _____ Firm Name _____

City _____ State _____

When writing to ACME CARD SYSTEM COMPANY please mention Nation's Business

How Chambers Help Schools

By SAMUEL ENGLE BURR

Superintendent of Schools, Glendale, Ohio. Formerly Director of Research, Lynn (Mass.) Public Schools

CITIES are peopled each day with a great host of men and women bending every effort to maintain and improve their business and financial status, to strengthen established connections and to form desirable new ones. Theirs is the urge to build up greater reserves of capital, to obtain an increasing turnover and greater earnings.

All business people—perhaps all people in general—are interested in seeing their financial status improve—to see their bank deposits increase.

But these people who today are building big business structures or who are piling up nice balances in savings banks will soon pass out of the picture leaving their business ventures to the next generation. If they wish their work to continue its usefulness, they must prepare other persons, who are only children now, to control them.

If the present American prosperity is to continue and to increase and to spread to other lands, then that growth will depend to a large extent upon the education provided now for our children.

Business must act as a unit

MANY business and industrial firms have recognized the need for such action. A number of large companies have found it advisable to set up school departments of their own, specializing in the type of work which they desire to have done. Prominent brokerage houses maintain schools of salesmanship and of finance for their employees.

Well known retail stores provide training courses in selling, advertising, managing and buying.

The General Electric Company maintains apprentice schools for machinists of various sorts and student engineering courses for more highly trained employees. These are only a few of the many available examples.

While of great value, these endeavors are not sufficient to answer the need. If business is to interest itself in the training of the next generation, it must act as a unit.

Such action should involve the entire business, commercial and industrial community.

Any connection between the representatives of a single industry and those engaged in public education is unwise, no matter how wholesome that relationship may be, because propaganda is immediately suspected.

But when business in general takes an interest in good schools, good teaching and better educational results, no undesirable propaganda is involved. The general representative of the commercial world is the local chamber of commerce and contacts with education can be made legitimately by it, without fear of criticism.

A visit to several chambers of commerce discloses the little known fact that many such contacts have already been made.

An inquiry at the Boston Chamber of Commerce, 80 Federal Street, was immediately referred to the manager of the Civic Bureau, Ellerton J. Brehaut. This bureau handles civic relationships of various sorts, including some contacts with schools. It was interesting to learn, however, that the Boston Chamber's Committee on Education had been discontinued because so little work was referred to it.

Two school contacts now remain for the Boston Chamber of Commerce. One of these is through the Retail Trade Bureau, of which Daniel Bloomfield is the manager. This bureau, in cooperation with the public school department, provides a series of courses of practical value, especially in the fields of Salesmanship and Executive Work for Retail Store Employees. This work is directed by a subdivision of the Bureau, called the Merchants' Institute.

The second outstanding contact now connecting the Chamber of Commerce and the public schools is the appointment of Carl Dreyfus to the School Survey Committee.

According to the last annual report of the superintendent of the Boston Public Schools, this survey committee was authorized by the Boston School

Committee on March 19, 1928. The committee consists of seven members and one of these is nominated by the Chamber of Commerce. This member, representing the business, commercial and industrial element of the city is Mr. Dreyfus.

The literature issued by the Boston Chamber of Commerce indicates that the local business community fully realizes the fundamental value of the public schools of the city.

Other chambers also interested

THE writer recently had an opportunity to visit Cleveland, Ohio, and to observe the degree of cooperation existing there between the Chamber of Commerce and the public schools.

It was found that there, too, certain very close contacts have developed—more extensive ones, perhaps, than in Boston.

In Cleveland, the vocational education carried in the public school system is based upon courses of study which are prepared by cooperative committees representing the workmen, the employers and the teachers in any given field. These cooperative committees are brought about through the joint efforts of the school department and the Chamber of Commerce. As a result of the method being used, all the elements involved in a situation—labor, capital and education—are in agreement as to the materials, the methods and the procedures being used.

In order to determine the extent to which chambers of commerce in general are interested in education, inquiries were sent to a number of these bodies in New England cities.

It was found that some have committees on education but that most do not. All recognize the value of good schools as a definite civic asset and all mention the local schools in their advertising literature. In most cases, the local superintendent of schools is recognized as an important element in the city's commercial development, and in many cases, he is an active member

LOWEST DELIVERY COSTS TO 19 MILLION PEOPLE FROM KANSAS CITY



NEW IN KANSAS CITY

The world's largest bus terminal, a block square and eleven stories in height, has just been opened in Kansas City as headquarters for the Pickwick-Greyhound Lines. Kansas City's strategic central location, the excellent development of highways in every direction and its steady growth and prosperity were factors in its selection for this development. *Adequate transportation facilities* are a vital advantage to an industrial center, an advantage in which Kansas City is unexcelled by any other metropolis. Transportation facts in detail are yours for the asking.

KANSAS CITY offers its manufacturers and wholesalers *lowest delivery costs to nineteen million people*. Comparative freight rates in every classification definitely prove this statement.

New rates just established by the Interstate Commerce Commission give Kansas City an additional important transportation advantage in lower through rates from the Atlantic seaboard.

Kansas City grows amazingly as a distribution center in this period of day-to-day buying. Its manufacturers and wholesalers can ship today's orders to-day with delivery in many cases tomorrow, *giving promptest service at lowest cost*. And that is just the sort of service a manufacturer must be able to give the retail outlets in this 19-million area. *Long-distance service no longer can compete.*

Transportation has found a logical center in Kansas City: Twelve trunk line railroads and thirty-two subsidiaries; the world's largest bus terminal; adequate highway freight and passenger service; two large close-in airports with 44 regularly scheduled airplane arrivals and departures daily (including two transcontinental lines, with a third in process of development); a navigable Missouri River channel to St. Louis about ready for the barge lines.

Kansas City offers every manufacturing advantage, but none more important than quick, economical transportation to 19 million people.

INDUSTRIAL COMMITTEE OF THE CHAMBER OF COMMERCE OF

KANSAS CITY MO.

♥
Other communities may be hesitating; Kansas City goes right ahead working and prospering, *with 1930 now promising to equal or exceed 1929 in sales volume in many lines.*

♥
Kansas City is one of construction's brightest spots in the United States, with scarcely a block in the downtown area unable to boast one or more multi-story buildings; in the aggregate, an investment upward of \$40,000,000 by investors from other sections who have faith in Kansas City!

INDUSTRIAL COMMITTEE, CHAMBER OF COMMERCE,
KANSAS CITY, MISSOURI

Please send me the facts about Kansas City. I am interested in the _____ industry.

Name _____

Firm _____

Address _____

City _____ State _____

{I saw your advertisement in Nation's Business}

Management!

That's the biggest need of business today . . .

Management gives freedom from routine. Ediphones clear desks of details. They enable dictators to reply to their correspondence after a single reading.

Management creates time gain. The average dictator will gain a month a year by using Ediphones for his dictation.

Management accomplishes reduction of overhead. Under old dictating methods a letter may cost 50¢. With Ediphone signature service, this cost is easily cut in half.

Management uses the latest business equipment. Ediphone dictation is as simple as telephoning. You simply pick up the receiver and talk.

TODAY, after fifty-three years, a world-wide service headed by Thomas A. Edison will assume full responsibility to organize your present office forces without interruption to business and without charge in proving results. Telephone "The Ediphone," your city, today. Send for the book, "An easy way to chart your correspondence."

THOMAS A. EDISON
INC.
ORANGE, N. J.



Ediphone
Edison's New Dictating Machine
World-Wide Service
in all Principal Cities

When writing please mention Nation's Business

of the trade body, often being made a member of some important committee.

In a number of cases, some outstanding service to the schools already has been rendered by the chamber of commerce. Providence, Rhode Island, is a good example. Largely under the leadership of the Providence Chamber of Commerce, a comprehensive survey of the public school system of that city was undertaken by Teachers College, Columbia University, some years ago. The recommendations contained in the survey report have been supported by the business body and notable educational improvements have been brought about in this way.

The Chamber of Commerce of Albany, New York, has considered the schools of that city to be of sufficient commercial importance to warrant the preparation of a booklet of 87 pages devoted entirely to the local educational advantages.

The Lynn Chamber of Commerce has issued recently a new advertising booklet with a page devoted to the local school system. This page of material is unusual and significant in that the information presented goes beyond the usual dry statistics as to enrollment, number of teachers, and number of buildings. It touches upon such important topics as the basic philosophy and psychology used in the classrooms, the training required of teachers and the businesslike method of handling financial and building programs.

The National Chamber

IT IS also significant that the Chamber of Commerce of the United States, at Washington, D. C., is taking a decided interest in the activities of local chambers in matters affecting education.

Recently its Civic Development Department issued a 26 page mimeographed statement called "A Tentative Report of Educational Activities of Chambers of Commerce." This report summarizes the educational activities of 204 local bodies scattered throughout the country in 45 different states, the District of Columbia, Hawaii, and Alaska.

Its conclusion, found on the final page of the pamphlet, reads as follows:

"The activities of chambers of commerce summarized in this report are concrete evidence of the interest of business men in the schools of their cities. This interest is shown in a variety of ways.

"Whatever the activity, here is ample proof that business men not only recognize in good schools a community asset but through their chambers of

commerce, are cooperating with school authorities in an effort to make these schools more effective.

"Significant of the fact that the futures of business and the schools are bound up together is the interplay of activity between the two. We find the high school boy by invitation attending chamber of commerce meetings and perhaps taking a small part therein; educators presenting their viewpoints in addresses before chambers of commerce; business men visiting the schools and speaking on the practical demonstrations of an education in the work life of the community.

"By these and many other contacts, business and education are being brought more closely together and are finding that their interests, though not identical, are similar. For the educator and the business man are bent on developing in individuals the ability to fill with more skill and vigor and with less waste effort the demands of present day life."

Must consider education

AS ONE educator has stated the situation, the chamber of commerce cannot help but take an interest in the cause of public education, if it is only from the financial point of view. It can choose between two distinct viewpoints as to public school finance: 1. The chamber of commerce may take a narrow point of view and attempt to limit local expenditures for education to the barest necessities, thus reducing the tax-rate. A low tax-rate can be used as an inducement to secure new industries and to expand old ones. 2. The chamber of commerce may assume a broad viewpoint and encourage the extension of the local public school system along lines of proven value. Such a school system should be a direct asset to industry by furnishing the type of training required of executives, managers, foremen and laborers in local industrial concerns.

From the information now available, it seems that the general tendency is to accept the broad point of view, but there are still notable exceptions.

Regardless of the financial attitude, chambers of commerce everywhere are interested in seeing the public schools produce the best possible results, whether the investment in money be large or small. Not only must they sell their city industrially, to new organizations looking for favorable locations, they must also sell their city as a place in which the company's employees must live and good schools are recognized as the backbone of a good residential community.

Big Events Make Little Stir

(Continued from page 30)

shuddered as they whispered that the Emperor had descended to the basest of all crimes and had killed his mother. For many years that date would have been marked in history by the murder of Agrippina; but a little man in the Roman Empire, perhaps in Rome itself, a prisoner and in chains, wrote a book in 58 A. D., and in the history of the world that date is marked, not by an appalling crime, but by the glorious tradition that it was then that Paul wrote the Epistle to the Corinthians.

The year 500 A. D. may be taken as a turning point in the history of the world. Clovis, the Frank, entered Gaul, there to found the Frankish Empire, which was to rise to its height under Karl the Great. Arthur in England was perhaps battling with his back to the wall against the Saxon hordes for the fragments of Roman civilization. Theodoric, already sufficiently civilized to bear a Greek name, was leading the Goths into Italy, there to stabilize for a time the Western Roman Empire.

In the East, Justinian was still a youth but was soon to rise to the front of the Eastern Byzantine Empire and to become one of its greatest rulers. Any man then able to survey the welter of world history would have been puzzled to select the event that would have the greatest importance for the future of Europe.

I venture to think that today we should agree that none was as important as Benedict. In 500 he withdrew from Rome to Subiaco, whence he was to emerge in 529 to establish the first Benedictine monastery in Southern Italy and there formulate the Benedictine rule which was to hold aloft the torch of religion and culture through the Middle Ages.

That darkness lasted for nearly a thousand years, and while many important events naturally occurred during that period, the beginning of modern learning came dramatically with the end of the classical period in 1453, when Mohammed at the head of the Turks stormed the walls of Constantinople and destroyed the last fragment of the Byzantine Roman Empire.

At that date somewhere in Germany, Gutenberg was printing the first book

from movable types, an invention which was to broadcast learning throughout the world. The fall of Constantinople was a tremendous shock to the Western World, but compared with the development of the printing press, it was of no significance in the larger scheme of things.

Religion and science

THE next date that is selected as an outstanding point in the history of culture and science is 1685. In that year, the king of England was facing a conflict which was to cost him his crown, a conflict which originated in differences between the religion of the people and that of the reigning house of Stuart. Parliament had decreed that no Catholic could hold public office and had required definite tests of the religious beliefs of all officials.

James II evaded the tests and defied

orbits for which Kepler had suggested a generalization which was largely accepted.

In the spring of 1685 Newton formulated the law of universal gravitation and in the summer he finished the second book of the *Principia*, in which the whole of this work was published. From the work of Newton, of which this was one of the most important steps, came mechanics, engineering, and modern science. Newton's work was not unrecognized in England. It was published at the Royal Society.

A hundred and fifty years later, England was again convulsed over a great political problem. While the control of power was in the hands of a Parliament appointed by adult suffrage limited somewhat by property conditions, the shift of population had concentrated the power of appointing members in the hands of landlords who controlled small districts which returned a member to

Parliament, while many large centers of population were poorly represented.

The matter came to a head in the drafting of a reform bill by which the distribution of seats for Parliament would be entirely changed and the old privilege of the landed classes swept away. This was opposed by Peel, and, April 22, 1831, he was opposing the reform bill in a great speech in the House of Commons when he was interrupted by the arrival of the King to dissolve the Parliament which had thrown out the bill, and the reform bill was settled by the general election of 1832.

The science of electricity

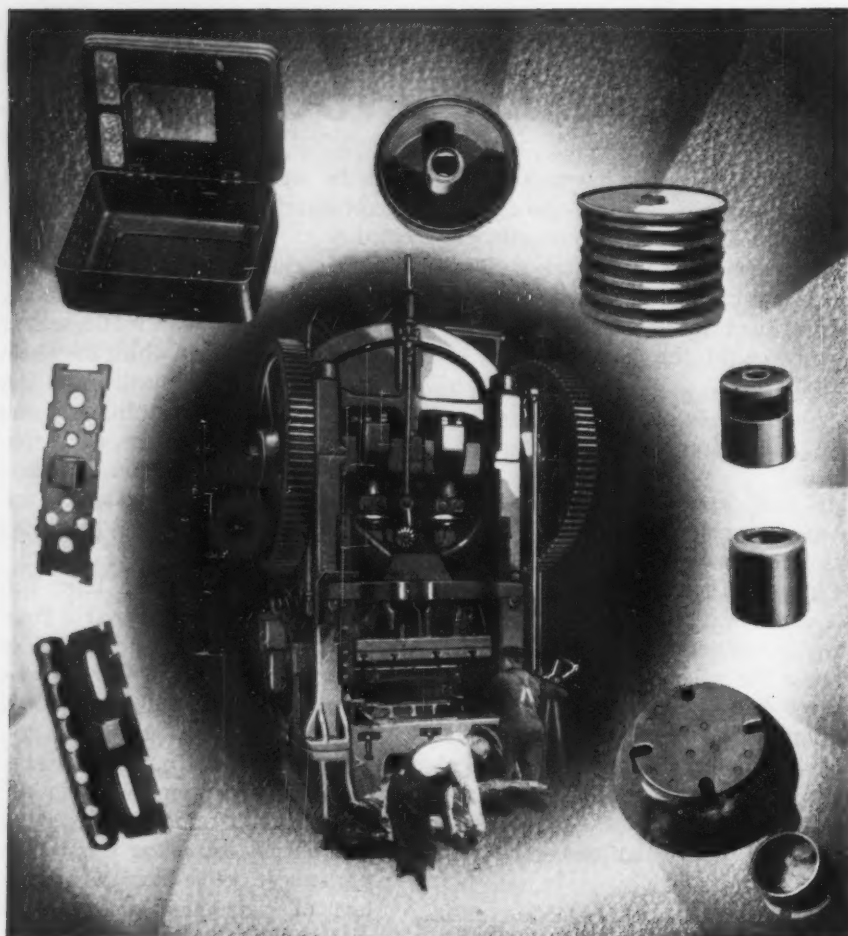
DURING a constitutional change of this magnitude, men had little time to think of a professor at the Royal Institution, Michael Faraday, who was studying the effect produced in a wire when a current passing through a wire near it is started or stopped, the phenomenon which we know as "electro-magnetic induction." That was perhaps the most brilliant of all the work on electricity which Faraday did at the Royal Institution.

From Faraday's work came the dynamo, the transformer, the whole art of electro-plating, and the electro-de-



In the ashes he found a substance we would recognize as copper

the House of Commons in his appointments. England seethed with revolt; but in the history of science, the year 1685 is marked by a far greater event. It was the year in which Isaac Newton composed much of his great work. In the early part of that year, he was studying the movement of the planets in their



TRUSCON

famous for its pressed steel products..Now offers general industry its vast resources in reducing manufacturing costs with

PRESSED STEEL

MANUFACTURERS, searching out new features of refinement for their products—for methods of cutting costs and increasing sales, have been astounded, in many cases, when Truscon engineers demonstrated the possibilities of redesign in pressed steel.

What has been done for others may be possible for your firm as well. If not the entire product, one or more of its parts, when pressed from steel, may bring you appreciable savings in weight, material, machining and labor.

Truscon pressed steel redesign engineers will gladly study your specifications, and, if pressed steel can offer improvements in production and increased profits, they will tell you.

This service is free—no obligations attached. Simply mail specifications to our Pressed Steel Redesign Engineer.



TRUSCON STEEL COMPANY
Pressed Steel Division
6102 Truscon Ave. Cleveland, Ohio

SAVE WITH PRESSED STEEL

When writing to TRUSCON STEEL COMPANY please mention Nation's Business

position of metals. If we subtracted Faraday's contributions to the science of electricity, it is not unfair to say that no such science would be left. It is certain, however, that in 1831 the dinner tables of the most cultured and most intelligent people dealt far more fully with the problems of Sir Robert Del than with those of Michael Farada

These examples are sufficient to show that contemporary judgments as to the importance of an event may be quite wrong and that events which appear unimportant may eventually have a great influence on the future. It seems unlikely that our judgment as to the relative importance of events can be improved; a careful study of history and a consideration of the effect on events of new discoveries and inventions may perhaps enable us to foresee over a brief term of years the value of any change which comes to our notice, but the future will always be hidden from the eyes of man, and his judgment of the effect of the present on that future will probably always be faulty.

A Small-Town Drug Store's Record

IN these days when a "prescription" is held to be synonymous with a beverage, it is not surprising to run across a store that advertises itself as "the home of a quarter-million prescriptions." But when you find the store making such a claim is located in Pineville, Ky., then you pause in wonder.

Bingham's Drug Store, in Pineville, has been filling prescriptions for 46 years. To date, more than 250,000 have been filled and paid for. That means an average of 5,434 prescriptions a year, or 436 a month. Lately, however, the store has been beating that.

"We average a thousand prescriptions a month," the prescription clerk explained. "Where do they come from? Well, one doctor writes about 50 prescriptions a day. One day he made a record and wrote 72. We filled all.

"The town isn't very large, but this doctor's patients come in from parts of Virginia and Tennessee. Then, too, a lot of them come down from the mining settlements. The prescriptions aren't for any one special thing; they cover all kinds of sicknesses."

The store is now starting on its second quarter-million prescriptions.

It might do well, meanwhile, to take out insurance on the life of that doctor.

—FRED B. BARTON

NEW YORK STATE . . . ALL YEAR VA-
CATION-LAND . . . A GOOD PLACE TO
WORK, AND A GOOD PLACE TO PLAY

If WIVES helped choose a Factory site



*Home life is happy,
children are healthy, in
New York State. Wives
enjoy living here.*



*For those who like
the water there are
beaches, lakes and
rivers right at hand.*

BEFORE a manufacturer builds a new plant he consults his architect, his lawyer, his banker. He ought to consult his wife, too. She will want to know:

How about schools and churches for my children? . . . Will my neighbors be intelligent, enlightened, stimulating people? . . . Is the community backward or advanced? . . . Does it have good-looking homes, beautiful parks and well-ordered institutions? . . . Will my children grow up in the right kind of atmosphere?

Those are some of the "woman reasons" why your plant should be in New York State. The "man reasons" are just as clear, especially in regard to industry's newer needs such as:

1. Lower cost of distribution
2. Lower cost of electricity

Your factory in the Niagara Hudson territory will enjoy electric rates far lower than the nation's average. In some cases, this is a huge advantage . . . in other cases, minor. In every case, it is a definite, calculable fact.

Marketing? Cheap marketing depends on nearness to your market. Here you are in the mid-stream of the world's greatest purchasing-power, and at the mouth of foreign markets everywhere.

There are other "man reasons" such as raw materials, capital, labor, etc. They are clearly set forth in the new 28-page booklet, "New York, the Great Industrial State." Send for a copy. Address Niagara Hudson Power Corporation, Industrial Development Bureau, Albany, N. Y. And if you then want your own case analyzed, you can command the services of the Bureau's engineers. They will attempt no persuasion beyond whatever facts their studies may unearth.

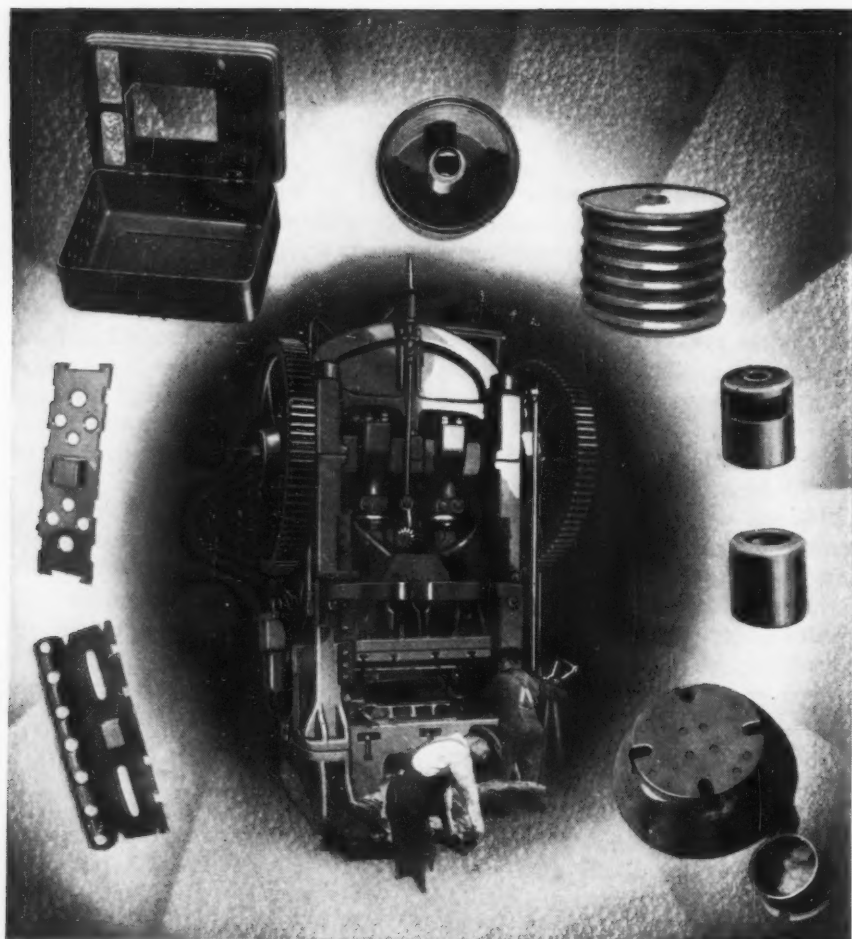
NIAGARA HUDSON

Hear Niagara Hudson broadcast fascinating stories of New York State. Every Thursday night, 7:30 - 8:00 (Eastern Standard Time), WFAF, WGR, WGY, WSYR

Write for our new book, describing the industrial territory served by Niagara Hudson Power Corporation, including among others the localities listed below:

ALBANY	BUFFALO	E. SYRACUSE	GOWANDA	KENMORE	NEW YORK MILLS	RENSSELAER	TONAWANDA
ALBION	CANAJOHARIE	FAIRPORT	GREEN ISLAND	LACKAWANNA	NIAGARA FALLS	ROME	TROY
AMSTERDAM	CANASTOTA	FALCONER	GREENWICH	LANCASTER	N. TONAWANDA	ROTTERDAM	UTICA
ANTWERP	CANTON	FORT EDWARD	HAMBURG	LERoy	NORWOOD	ST. JOHNSVILLE	WATERFORD
ATTICA	CARTHAGE	FORT PLAIN	HERKIMER	LITTLE FALLS	OAKFIELD	SALAMANCA	WATERTOWN
BALDWINVILLE	COBLESKILL	FRANKFORT	HOMER	LOWVILLE	OGDENSBURG	SARATOGA SPRINGS	WATERVLIET
BALLSTON	CORTLAND	FREDONIA	HUDSON	LYONS	OLEAN	SCHENECTADY	WELLSVILLE
BATAVIA	COHOES	GENESEO	HUDSON FALLS	MALONE	ONEIDA	SCOTIA	WESTFIELD
BOONVILLE	DEPEW	GLENS FALLS	ILION	MASSENA	OSWEGO	SKANEATELES	WHITEHALL
BROCKPORT	DOLGEVILLE	GLOVERSVILLE	JAMESTOWN	MEDINA	POTSDAM	SOLVAY	WHITESBORO
DUNKIRK	GOVERNEUR	JOHNSTOWN	MOHAWK	PULASKI	SYRACUSE	WILLIAMSVILLE	

When writing to NIAGARA HUDSON POWER CORPORATION please mention Nation's Business



TRUSCON

famous for its pressed steel products..Now offers general industry its vast resources in reducing manufacturing costs with

PRESSED STEEL

MANUFACTURERS, searching out new features of refinement for their products—for methods of cutting costs and increasing sales, have been astounded, in many cases, when Truscon engineers demonstrated the possibilities of redesign in pressed steel.

What has been done for others may be possible for your firm as well. If not the entire product, one or more of its parts, when pressed from steel, may bring you appreciable savings in weight, material, machining and labor.

Truscon pressed steel redesign engineers will gladly study your specifications, and, if pressed steel can offer improvements in production and increased profits, they will tell you.

This service is free—no obligations attached. Simply mail specifications to our Pressed Steel Redesign Engineer.



TRUSCON STEEL COMPANY
Pressed Steel Division
 6102 Truscon Ave. Cleveland, Ohio

SAVE WITH PRESSED STEEL

When writing to TRUSCON STEEL COMPANY please mention Nation's Business

position of metals. If we subtracted Faraday's contributions to the science of electricity, it is not unfair to say that no such science would be left. It is certain, however, that in 1831 the dinner tables of the most cultured and most intelligent people dealt far more fully with the problems of Sir Robert Peel than with those of Michael Faraday.

These examples are sufficient to show that contemporary judgments as to the importance of an event may be quite wrong and that events which appear unimportant may eventually have a great influence on the future. It seems unlikely that our judgment as to the relative importance of events can be improved; a careful study of history and a consideration of the effect on events of new discoveries and inventions may perhaps enable us to foresee over a brief term of years the value of any change which comes to our notice, but the future will always be hidden from the eyes of man, and his judgment of the effect of the present on that future will probably always be faulty.

A Small-Town Drug Store's Record

IN these days when a "prescription" is held to be synonymous with a beverage, it is not surprising to run across a store that advertises itself as "the home of a quarter-million prescriptions." But when you find the store making such a claim is located in Pineville, Ky., then you pause in wonder.

Bingham's Drug Store, in Pineville, has been filling prescriptions for 46 years. To date, more than 250,000 have been filled and paid for. That means an average of 5,434 prescriptions a year, or 436 a month. Lately, however, the store has been beating that.

"We average a thousand prescriptions a month," the prescription clerk explained. "Where do they come from? Well, one doctor writes about 50 prescriptions a day. One day he made a record and wrote 72. We filled all.

"The town isn't very large, but this doctor's patients come in from parts of Virginia and Tennessee. Then, too, a lot of them come down from the mining settlements. The prescriptions aren't for any one special thing; they cover all kinds of sicknesses."

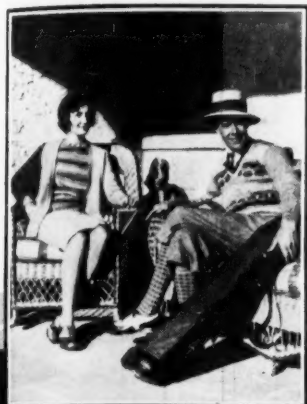
The store is now starting on its second quarter-million prescriptions.

It might do well, meanwhile, to take out insurance on the life of that doctor.

—FRED B. BARTON

NEW YORK STATE . . . ALL YEAR VA-
CATION-LAND . . . A GOOD PLACE TO
WORK, AND A GOOD PLACE TO PLAY

If WIVES helped choose a Factory site



Home life is happy,
children are healthy, in
New York State. Wives
enjoy living here.



For those who like
the water there are
beaches, lakes and
rivers right at hand.

BEFORE a manufacturer builds a new plant he consults his architect, his lawyer, his banker. He ought to consult his wife, too. She will want to know:

How about schools and churches for my children? . . . Will my neighbors be intelligent, enlightened, stimulating people? . . . Is the community backward or advanced? . . . Does it have good-looking homes, beautiful parks and well-ordered institutions? . . . Will my children grow up in the right kind of atmosphere?

Those are some of the "woman reasons" why your plant should be in New York State. The "man reasons" are just as clear, especially in regard to industry's newer needs such as:

1. Lower cost of distribution
2. Lower cost of electricity

Your factory in the Niagara Hudson territory will enjoy electric rates far lower than the nation's average. In some cases, this is a huge advantage . . . in other cases, minor. In every case, it is a definite, calculable fact.

Marketing? Cheap marketing depends on nearness to your market. Here you are in the mid-stream of the world's greatest purchasing-power, and at the mouth of foreign markets everywhere.

There are other "man reasons" such as raw materials, capital, labor, etc. They are clearly set forth in the new 28-page booklet, "New York, the Great Industrial State." Send for a copy. Address Niagara Hudson Power Corporation, Industrial Development Bureau, Albany, N. Y. And if you then want your own case analyzed, you can command the services of the Bureau's engineers. They will attempt no persuasion beyond whatever facts their studies may unearth.

NIAGARA HUDSON

Hear Niagara Hudson broadcast fascinating stories of New York State. Every Thursday night, 7:30 - 8:00 (Eastern Standard Time), WEAf, WGR, WGY, WSYR

Write for our new book, describing the industrial territory served by Niagara Hudson Power Corporation, including among others the localities listed below:

ALBANY	BUFFALO	E. SYRACUSE	GOWANDA	KENMORE	NEW YORK MILLS	RENSSELAER	TONAWANDA
ALBION	CANAJOHARIE	FAIRPORT	GREEN ISLAND	LACKAWANNA	NIAGARA FALLS	ROME	TROY
AMSTERDAM	CANASTOTA	FALCONER	GREENWICH	LANCASTER	N. TONAWANDA	ROTTERDAM	UTICA
ANTWERP	CANTON	FORT EDWARD	HAMBURG	LEROY	NORWOOD	ST. JOHNSVILLE	WATERFORD
ATTICA	CARTHAGE	FORT PLAIN	HERKIMER	LITTLE FALLS	OAKFIELD	SALAMANCA	WATERTOWN
BALDWINVILLE	COBLESKILL	FRANKFORT	HOMER	LOWVILLE	OGDENSBURG	SARATOGA SPRINGS	WATERVLIET
BALLSTON	CORTLAND	FREDONIA	HUDSON	LYONS	OLEAN	SCHENECTADY	WELLSVILLE
BATAVIA	COHOES	GENESEO	HUDSON FALLS	MALONE	ONEIDA	SCOTIA	WESTFIELD
BOONVILLE	DEPEW	GLENS FALLS	ILION	MASSENA	OSWEGO	SKANEATELES	WHITEHALL
BROCKPORT	DOLGEVILLE	GLOVERSVILLE	JAMESTOWN	MEDINA	POTSDAM	SOLVAY	WHITESBORO
DUNKIRK	GOVERNEUR	JOHNSTOWN	MOHAWK	PULASKI	SYRACUSE	WILLIAMSVILLE	

When writing to NIAGARA HUDSON POWER CORPORATION please mention Nation's Business



The cross-licensing plan made more auto sales possible

Why Auto Builders Pool Patents

By PAUL H. HAYWARD

Associate Editor, NATION'S BUSINESS

WOOD CUT BY MAUD GRANT-FORD

COMPETITION between the early automobile builders was of the stone-age variety—fierce and relentless, with no blows barred. It extended all the way down the line, from the earliest stages of production to the final sale of cars to motorists, but in perhaps no phase of the business were competitive conditions more intense or more chaotic than in that embracing inventions and patents.

Many inventors, both those working independently and engineers on the automobile companies' pay rolls, were working ceaselessly to devise new equipment or to perfect old. As in all budding industries, developments came thick and fast. One manufacturer would invent left-hand drive with center control; another would obtain a patent on cantilever springs, a third would develop a transmission or an axle.

Countless lawsuits over patents were threatened, and some started. Most famous of the latter, perhaps, was that over the Selden patent. This patent, covering the gasoline automobile, was granted to George B. Selden, a patent lawyer of Rochester, N. Y., in 1895. He sold control of the patent in 1899 to the Columbia and Electric Company, after-

ward the Electric Vehicle Company. The next year this company undertook to enforce the patent, suing the Winton Motor Carriage Company for infringement. The suit ran until 1903, when the Association of Licensed Automobile Manufacturers was organized and ten firms recognized the Selden patent and contracted to pay as royalty a percentage of the retail price of all cars sold.

Excessive litigation

LATE in 1903 came the famous test suit case of the Electric Vehicle Company against the Ford Motor Company. The suit reached a climax in 1909, when Judge Hough, in the United States District Court, sustained the Selden patent and granted an injunction and an accounting. The "independents" associated with Ford in the suit accepted the verdict and nearly all went into the Association. Ford, however, appealed; and in 1911 the United States Court of Appeals ruled that the Selden patent was valid but that Ford did not infringe it, inasmuch as Selden described a Brayton type engine rather than the Otto type which Ford and others used.

This and other patent suits of a less

spectacular nature impressed upon the industry generally, the cost of such litigation and its hampering effects. The more progressive began casting about for a solution to what was becoming a most pressing problem.

The answer was first suggested, in 1909, by Charles C. Hanch, who gained his early experience in the industry with the Nordyke & Marmon Company of Indianapolis. This company also manufactured—and still does—flour milling machinery, and Mr. Hanch had seen something of the crippling effects of patent litigation in that field. He began preaching the value of an exchange of patents among automobile builders, but the way to acceptance was strewn with difficulties.

"Why should a company take out patents if they are to be given to all other manufacturers?" it was asked. That particular question found its answer in the fact that otherwise patents might be issued to persons or companies outside the industry who could and would sue automobile makers for royalties.

Again, each company thought its own patent or patents were the most important, and the company owning 20 pat-

Yes! We are Civic-Minded in the SAN FRANCISCO METROPOLITAN BAY AREA



Few communities in the world have been favored with the balanced prosperity which has been enjoyed continuously in the San Francisco Metropolitan Bay Area. We who live, work, and play in this nature-favored section gain the fullest appreciation of our good fortune.

Visitors from the East and Middle West—people in the best position to compare—are quick to comment upon:

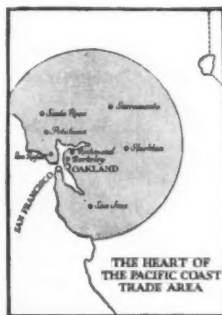
1. The healthy condition of employment here.

2. The unusual percentage of home-owners and car-owners.
3. Delightful climate the year round.

For Industries:
This section offers—abundance of electric power and Natural Gas at low rates; unusually low labor turn-over due to large

home ownership; all year working climate; waterfront and other acreage at low cost; wide variety and abundance of raw materials; transportation facilities and a receptive local and export market.

For information regarding opportunities for Industries, write:



PACIFIC GAS AND ELECTRIC COMPANY

P.G. and E.

General Office: 245 Market Street, San Francisco, California
Serving 362 communities in Northern and Central California

Ind. 5-30

When writing to PACIFIC GAS AND ELECTRIC COMPANY please mention Nation's Business

ents was reluctant to exchange its patent holdings with a company that might own but three.

Balancing these objections, however, was the fact that each company, regardless of the value of its own patents, was eager to use devices developed by other companies. While many of these patents were of little merit, all were of threatening potentialities, for suits for infringement might be started under them at any time. Then, too, negotiations for the use of patents were necessarily long drawn out, and meanwhile the public was impatiently demanding better cars.

Ten-year agreement made

LEADERS in the industry became interested in Mr. Hanch's plan, notably Howard E. Coffin, vice president of the Hudson Company, and began to work for its adoption. Mr. Hanch was named chairman of the patents committee of the National Automobile Chamber of Commerce, which was organized in 1913 to succeed two earlier organizations, the National Association of Automobile Manufacturers and the Automobile Board of Trade. Frederick P. Fish, patent counsel of the Chamber, worked out details of the plan and a meeting of manufacturers was called in New York to consider its merits.

Alfred Reeves, general manager of the Chamber, subsequently visited one plant after another to confer with factory officials, the local lawyers, directors and bankers of the member companies.

Finally the industry, through the activities of the National Automobile Chamber of Commerce, was brought to the realization that the patents of *all* manufacturers must of necessity be more valuable than those of any one company, and the exchange of patents, or the Cross-Licensing Patents Agreement as it was formally called, was approved by the directors of member companies. It became effective January 1, 1915.

It provided opportunity for all member manufacturers—136 in number and including all the leading companies in the industry save Ford—to exchange

patent rights for ten years without the payment of money royalties. Patents on all private passenger motor vehicles, the parts and accessories thereof and on all machines used in their manufacture were included in the agreement. Design patents and patents on the undeveloped and rapidly evolving commercial vehicles were excluded. Also all patents in the former category, acquired after January 1, 1915, whether by invention or purchase, during the ten years of the Agreement were likewise included in the cross-licensing plan.

If any party to the plan should develop, after January 1, 1915, an invention of a striking and revolutionary character, that patent, designated as Class B, was to be excluded. Only one such claim for Class B rating was ever made however, and an arbitration board, named to decide the issue, ruled the invention in question worth-while but not of a revolutionary character.

Thus the restraints that had slowed the wheels of the industry since its be-

ginning were released and the era of cooperative competition inaugurated. Each company was enabled to make the best car that the known art permitted, the real competition being in low-cost manufacture and in advertising and selling.

The life of the agreement was set at ten years with the thought that this would permit the industry to pass its development stage unfettered by patent litigation. Twenty-two million motor vehicles, valued at more than 16 billion dollars were produced during the decade, and so successful was the arrangement and so rapid the progress of the industry that its expiration brought wide demand for its extension.

The extension, for five years this time, was voted. It covered patents owned or controlled by members on January 1, 1925, excluding, however, patents acquired after that date. And last year, another five-year extension, bringing into the agreement all patents owned or controlled up to January 1, 1930, more than 1,600 in all, was again almost unanimously voted.

Better cooperation

MANY students of business believe that the rapid advance of the motorcar industry can be traced directly to this cross-licensing plan, not alone because it made successive developments available to all and banished threats of litigation, but because it created a better basis for cooperation in scores of other activities.

Expansion of the industry became more rapid when the public had no doubts of the resulting mechanical satisfactoriness of the motor vehicle; and that at lower prices than would have been possible had the industry been burdened with royalties or involved in expensive patent litigation. Outside royalties, as the situation now stands, have been estimated to average less than two dollars per car.

But the benefits of the cross-licensing plan were by no means confined to the automobile industry alone. Business in general profited, for with the rapid growth that the plan made possible

Some Developments in Cross-Licensing

PATENTS play a large part in American industries which are developing rapidly. These patents may be divided into two classes—those which are incidental and those which are essential to the individuality of the owner's product.

The National Automobile Chamber has promoted the efficiency of each of its members by arranging a free interchange of patents of this first class. Each manufacturer has thus been able to build a better car and at the same time keep it distinctly his own.

In some other fields arrangements have been made for dealing with patents of the second class also. The Department of Justice has raised the question of how far these arrangements are permitted under the patent laws.

Several years ago the Department raised this question about agreements into which oil refiners had entered with respect to their patents for the "cracking" processes, by which additional quantities of gasoline are obtained. The lower court held that the arrangements went too far. The case soon will come before the Supreme Court.

In May the Department started proceedings in which much the same question is raised about radio patents.

As the owners of the radio patents kept the Department informed about all the steps they were taking, this litigation may be regarded as a friendly suit in which questions of great importance in developing industries will be decided.

There's no betting post in the insurance business

SOME people have the idea that property insurance is a type of wager; that you bet some insurance company you won't have a fire.

Nothing is farther from the truth!

Few businesses are more scientific in daily operation . . . few have as complete and detailed systems and methods as the insurance business.

For example, the making of rates alone is an intricate, never-ending problem. Rates differ for different types of coverage, or for the same coverage in different industries. They vary according to localities—type of construction—fire protection—hazards of adjoining risks. They are affected by number of losses.

Again, to protect our policy holders against dishonest claimants, every effort is made to avoid contracts with persons of questionable character. Widespread statistics on losses are maintained, and scrutinized carefully as a check on the integrity of the whole group of policy holders.

From every viewpoint insurance companies take all precautions to eliminate guesswork and the element of wager.

Because it is so positive and accurate . . . because it has no speculative characteristics, property insurance is a sure and permanent ally to mankind.

Would you like to go into this matter thoroughly? An Agricultural representative will be glad to talk it out—to give you a picture of the inside of our business. Simply name the day—there's no obligation.

Agricultural
Insurance Company,
of Watertown, N.Y.



You can obtain
Agricultural Policies
for all coverages such as:

FIRE • PARCEL POST
AUTOMOBILE • MARINE
USE AND OCCUPANCY
RENT AND LEASEHOLD
WINDSTORM FLOATERS
SPRINKLER LEAKAGE
REGISTERED MAIL
TRANSIT • EARTHQUAKE
TOURISTS' BAGGAGE
EXPLOSION AND RIOT
AIRCRAFT DAMAGE

When writing to AGRICULTURAL INSURANCE COMPANY please mention Nation's Business

A Strand of Yellow

Aerial Wire Rope Tramways of Broderick & Bascom design are saving time and money for mines and industrial plants all over this country, in Mexico and Alaska. Investigate.

In the vast industry of building, where prodigious loads are handled with surprising ease and safety, wire ropes having one strand painted yellow are seen with conspicuous frequency.

This is Yellow Strand, a super wire rope developed and made by the Broderick & Bascom Rope Co., pioneers in the wire rope industry of this country.

Like many other great Americans, it is of foreign extraction. Its steel is largely of Swedish origin and is drawn into wire according to our own exacting specifications. Much of the machinery for its manufacture was designed by us and built in our own machine shop.

Contractors and others requiring heavy-duty wire rope know they make no mistake in specifying Yellow Strand. It has proved its stamina during many years.

This company also makes wire rope in all the standard grades.

Broderick & Bascom Rope Company St. Louis, Mo.

Eastern Office and Warehouse: 68 Washington Street, New York, N. Y.

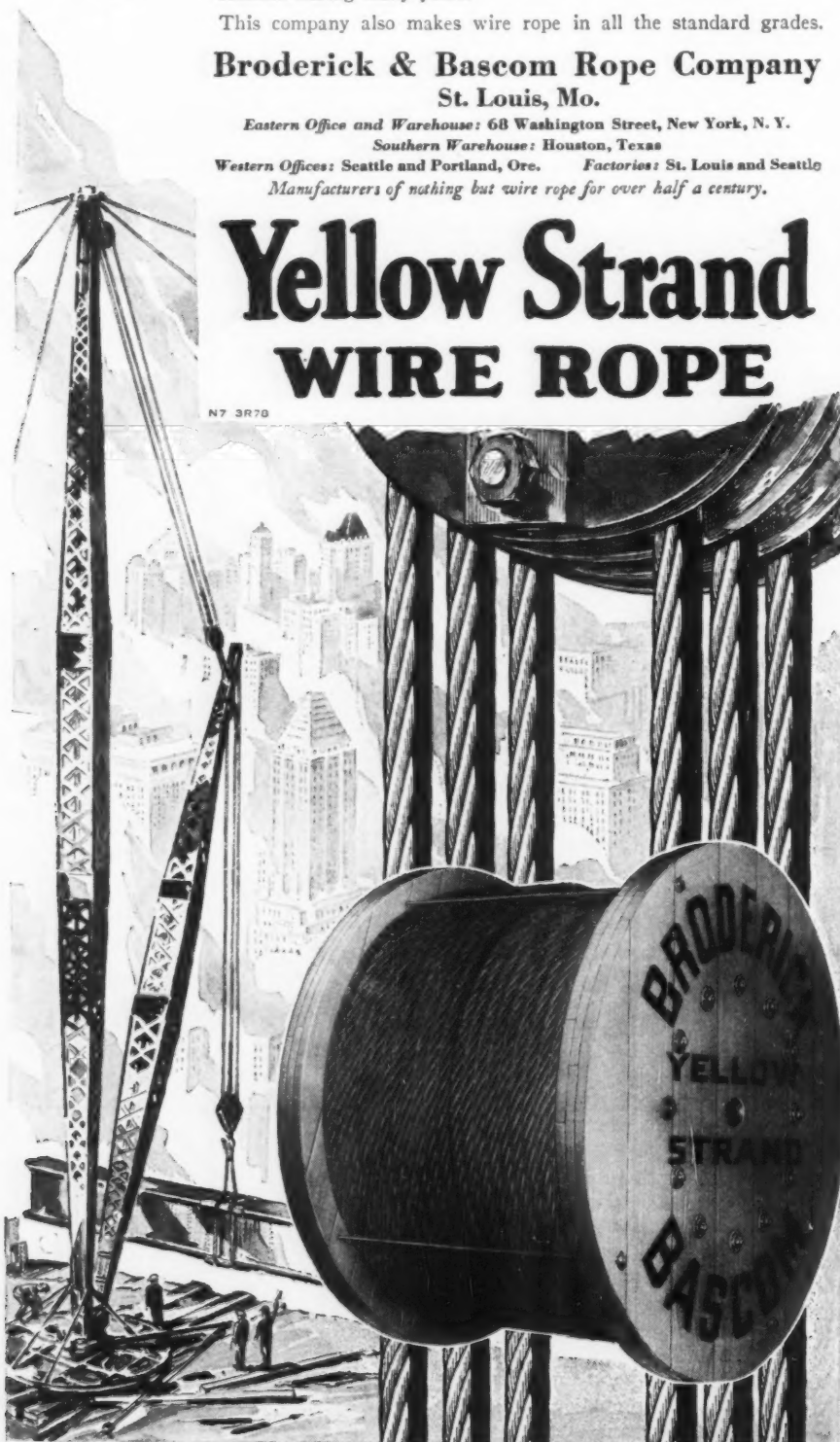
Southern Warehouse: Houston, Texas

Western Offices: Seattle and Portland, Ore. **Factories:** St. Louis and Seattle

Manufacturers of nothing but wire rope for over half a century.

Yellow Strand WIRE ROPE

N7 3R78



When writing to BRODERICK & BASCOM ROPE CO. please mention Nation's Business

in the motor industry came road building, record gasoline and oil refining, increased suburban home and garage building, and vastly increased consumption of steel, rubber, lumber, aluminum, copper, lead, hair, leather and scores of other products. Above all, came the employment, directly or indirectly, of all grades of workers—more than four million at the present time.

Further, the economical automobile that the cross-licensing plan made possible increased the number of persons who could afford rapid individual transportation. It added to the educational facilities of the country through centralized schools whose pupils could be transported by rural buses. It raised still higher the American standards of living, and materially contributed to the general prosperity of the nation. It made certain that from a mechanical standpoint the public was assured of the best and safest forms of motor vehicle transportation.

A.T.A.E. recognized achievement

THE outstanding character of the Agreement and its contributions to industry generally was signalized recently when, on the basis of its cross-licensing plan, the National Automobile Chamber of Commerce was declared the winner of the American Trade Association Executives' Award. This Award, established only last year, is given annually for "the outstanding achievement of a trade association in relation to distinguished service rendered by it to the industry it represents, to industrial development at large, and to the public." Thirty-five trade associations had set up claims for the honor.

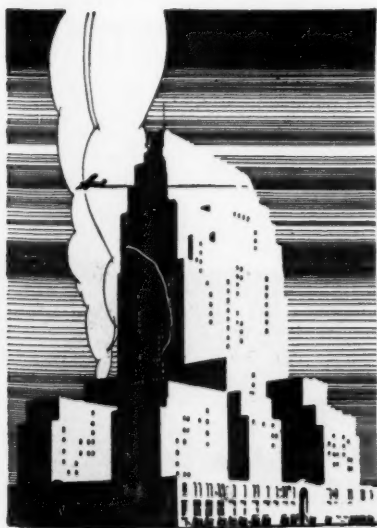
Secretary of Commerce Lamont, chairman of the Jury of Award—which also included Leonard P. Ayres, vice president of the Cleveland Trust Company; Walter Dill Scott, president of Northwestern University; Walter C. Strong, publisher of the Chicago Daily News; Merle Thorpe, editor of NATION'S BUSINESS; and Owen D. Young—said in presenting the bronze medallion emblematic of the Award:

"The Agreement . . . results in great public benefit by allowing each manufacturer to use the latest improvements originated by any company. It works a step in advance of most associated work and is of dominant importance, because of the magnitude of the automobile industry and the strength of the Association representing it."

THE TIME TO BUILD IS NOW!

The H. K. Ferguson Company is an organization of consulting engineers, architects and builders with an international reputation for notable achievement in the financing, design and construction of dividend-paying Commercial Structures, Industrial Plants, Power Plants, and their equipment.

Each month, 8,000 of the country's leading executives are reading the Ferguson Cross Section—a magazine dealing with timely engineering and business topics. A request on your letterhead will bring it to you gratis.



Boston acts now by awarding Ferguson Engineers contract for the New England Building, second largest office building in the world . . . part of a \$30,000,000 project.

Boston Office of The H. K. Ferguson Co.
222 Park Square Building

9 Reasons Why!

- 1 Lowest material prices in ten years . . . **NOW!**
- 2 Plenty of willing, efficient labor . . . **NOW!**
- 3 Pick of engineering talent available . . . **NOW!**
- 4 Conditions permit ample time for thorough study and development . . **NOW!**
- 5 Money cheap and looking for sound investments **NOW!**
- 6 Business upswing due **NOW!**
- 7 Quick delivery brings prompt returns on investment. You can get quick delivery . . . **NOW!**
- 8 The best time for a construction project is during the readjustment period or the early part of the period of expansion, which is **NOW!**
- 9 Successful industry is endeavoring more and more to estimate volume for a period of several months to several years ahead and to plan production facilities accordingly so that they will be available when needed. The time to plan is . . **NOW!**

THE H. K. FERGUSON COMPANY
Hanna Building • Cleveland, Ohio

Ferguson
ENGINEERS

NEW YORK • CHICAGO • BALTIMORE • DETROIT • BIRMINGHAM
TOKIO, JAPAN • TORONTO, CANADA • MEXICO CITY, MEXICO

When writing to THE H. K. FERGUSON COMPANY or its branch offices please mention Nation's Business



Ice-locked ships no longer are cut off from the world

Radio Conquers the Canadian Wilds

By JAMES MONTAGNES

★ **Wireless communication is lending a new impetus to business in the northland**

WHILE I was visiting the Director of Radio for Canada one day recently at his office in Ottawa, the telephone rang. Commander C. P. Edwards picked up the receiver and immediately began to write down the message that came to him over the telephone. He evidently expected it. When he hung up he told me that the message was from Bathurst Inlet.

Now Bathurst Inlet is one of the indentations along the Arctic coast line north of the Arctic Circle. Up there someone had ticked off a message, and a few minutes later the commander had received it in Ottawa, 2,000 miles away over a region where travel by canoe or dog team takes several months and where even airplanes need a week or more.

That station belongs to Dominion Explorers Limited, a mining company.

Business has turned its eyes to the Canadian northland, a country which has lain practically unknown since the discovery of the continent. Business men are studying government maps and gov-



Although far north, at the entrance to Hudson Bay, this station daily communicates with Ottawa



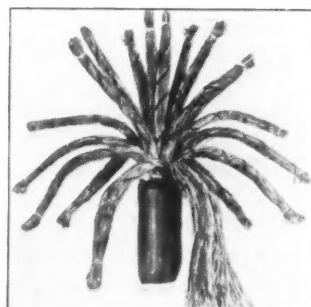
In fair weather or foul . . . Western Electric backs up your telephone service

In foul weather, just as in fair, Western Electric backs up the Bell System with all the apparatus and supplies needed to restore, maintain or expand your telephone service.

This Company manufactures telephone equipment of every sort, with a skill acquired through 50 years' experience. At 32 warehouses it holds great reserves of telephone material available for shipment day or night.

It delivers and installs the apparatus when and where needed.

The large scale manufacture of standardized equipment, too, is an economy. So is the concentrated purchasing—a responsibility that Western Electric undertakes for the telephone companies of the Bell System. All in all, here is a work of mass production, purchasing and distribution which for size and complexity has no parallel in industry.



1818 conversations at one time can be carried on through this new type cable. It contains 3636 insulated wires within a diameter of 2½ ins.



The flying telephone laboratory in which Western Electric airplane telephone equipment has been developed by the Bell Laboratories. Provision for communication between ground and plane marks a great forward step in flying.



One of the 18 materials in your telephone is rubber from the plantations of Sumatra. Western Electric goes to market in every corner of the world.

Western Electric



THE MAKERS OF
BELL TELEPHONES

ernment reports, and are sending expeditions north in growing numbers.

The business executive today is accustomed to fast communication. When he sends a party to travel anywhere in Canada north of the railway line, that party is practically cut off from communication except by runners. There are no telegraph lines. So the business man builds radio stations for direct communication with his head office.

Radio furnishes communication

DURING the past few years, chains of radio stations have brought the most remote points of the Dominion within easy reach of the big cities.

That message from Bathurst Inlet had been picked up at Churchill on Hudson Bay, relayed from there to Cape Hope's Advance on the Hudson Straits, and then picked up again in Ottawa. From Ottawa it was wired to Toronto, the company's headquarters.

There are few companies in the northland which have no radio contact with their headquarters. Dominion Explorers holds five licenses for stations in the northland. One of these is for an airplane. The others are at Bathurst Inlet; Baker Lake on Chesterfield Inlet, Hudson Bay; Fort Reliance at the top of Great Slave Lake; and Stony Rapids on Lake Athabasca, at the northern extremity of Saskatchewan. Bathurst Inlet and Baker Lake operate winter and summer, while the others are only summer stations.

The Hudson Bay Company keeps a number of ships in Arctic waters. Its vessels, the Fort James and the Baymaud, are equipped with radio. Messages from them are relayed to the company's Canadian and English headquarters through the government stations in the eastern and western Arctic.

A number of other companies operating in the Arctic take advantage of the government stations. The Government operates two chains. The one in the western Arctic terminates at Herschel Island, near where the Mackenzie River flows into the Arctic Ocean.

If a diagonal line is drawn from Herschel Island to Winnipeg, it will give an approximate idea of this

vast chain of radio stations. The Royal Canadian Corps of Signals operates all government radio stations from Herschel Island down to Winnipeg. That takes in the entire Northwest territories, the Yukon, Alberta, Saskatchewan and Manitoba. It has eleven stations north of the sixtieth parallel, including what are probably the two farthest north stations on the continent, Herschel Island and Aklavik. The Signal Corps has 17 other stations in the prairie provinces and at Ottawa.

As soon as anything important happens in the western Arctic, Ottawa knows about it through this chain of stations. Fur traders send their messages over it to their wholesale houses; posts of the trading companies use the chain for their internal communication with headquarters, and the Royal Canadian Mounted Police keep in direct contact with Ottawa from their various posts in the western Arctic.

The other chain, operated by the Department of Marine and Fisheries at Ottawa, includes four stations. These are at Churchill, the new seaport on the Hudson Bay and the terminus of the new Hudson Bay Railway; at Nottingham Island, one of a number of islands where the Hudson Bay meets the Hudson Straits; at Cape Hope's Advance, half way along the south shore of the

Hudson Straits; and at Resolution Island, a barren, bleak rock off the north shore of the Hudson Straits, where the Straits flows into the Atlantic.

Those stations, primarily built for ship guidance when the channel becomes a busy trade route between Canada and Europe, are equipped with the latest aids to navigation, including direction finding apparatus. The stations at Cape Hope's Advance and Churchill, have short-wave equipment for daily contact with Ottawa. All have been built within the last three years.

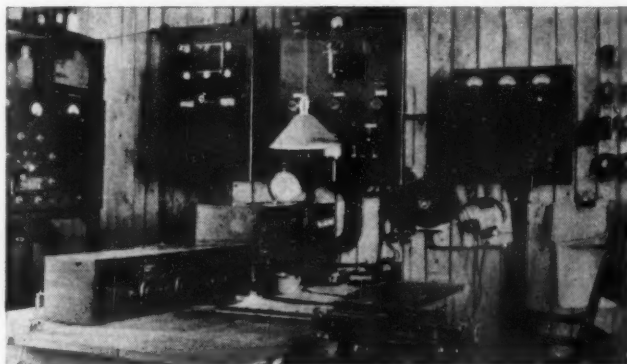
There are other vast districts in Canada south of the Northwest Territories which have no telegraphic or telephonic communication, where radio is the only contact. From the Pacific to the Atlantic, business men are using radio in remote points.

Take British Columbia, a province of mountains. Fishing and lumbering are the main industries. There are canneries far up the mountain rivers, and lumber camps in even more remote points. The mountains and the thousands of indentations along the coastline make telegraph and telephone lines almost impossible in this country. Most of the traffic is water borne and the number of tugs and small freighters is immense. Some method of communication was needed between cannery, lumber camp, Vancouver and the tugs and freighters.

Standardized telephones

THE Canadian Marconi Company was consulted, and today nearly all canneries, lumber camps and tugs have the standard 100-watt telephone transmitter built by the company. Telephone communication direct with the Vancouver exchange is thus available. No special operator is necessary. The captain of the boat, the manager of the cannery or lumber camp pushes the few buttons that bring the apparatus into working order for telephone conversation.

In some places, too distant for radio-telephone communication, code is used. The system has more than paid for itself. Tugs do not have to chase up and down rivers for loads. They are instructed while en route of changes in orders. Machinery breakdowns in can-



From such rooms as this, in lonely cabins, is woven the web of communications that is linking the North



ONLY a few years ago forests, mountains, ice and snow were powerful barriers to business in the remote reaches of Canada. Now, radio and that other annihilator of distance, the airplane, are effectively surmounting these obstructions. The silent wastes at last have found a voice

THERMOFLEX

NO. 3 OF A SERIES—

THIS series of advertisements is designed to acquaint business men with Grinnell Company as it really is. Automatic Sprinkler protection for which it first won international fame and leadership is not the chief business of the Company. Its equally high reputation for many other industrial piping specialties and commodities has been built on super-standards of manufacture and on original conceptions which are well known to engineers and architects. Businessmen, too, need to know the real quality in these products.

RADIATOR TRAP

for instance

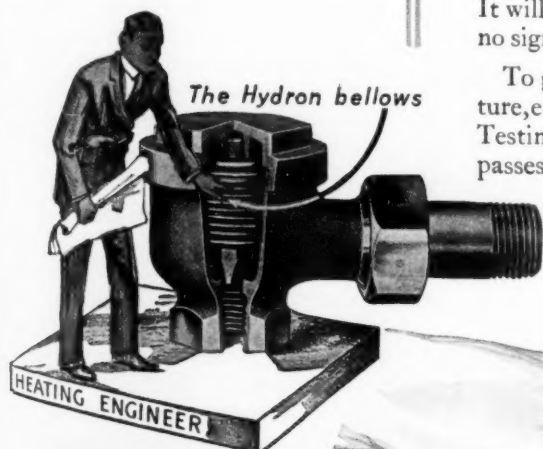
DO you know of any device which would be *destroyed* while it was being made, if there was the slightest weakness anywhere in its structure?

Each Hydron bellows in Thermoflex steam traps is made by internal hydraulic pressure, which tests its structure—infallibly. So you have a guarantee of strength of each trap on each radiator far beyond any demands in actual use.

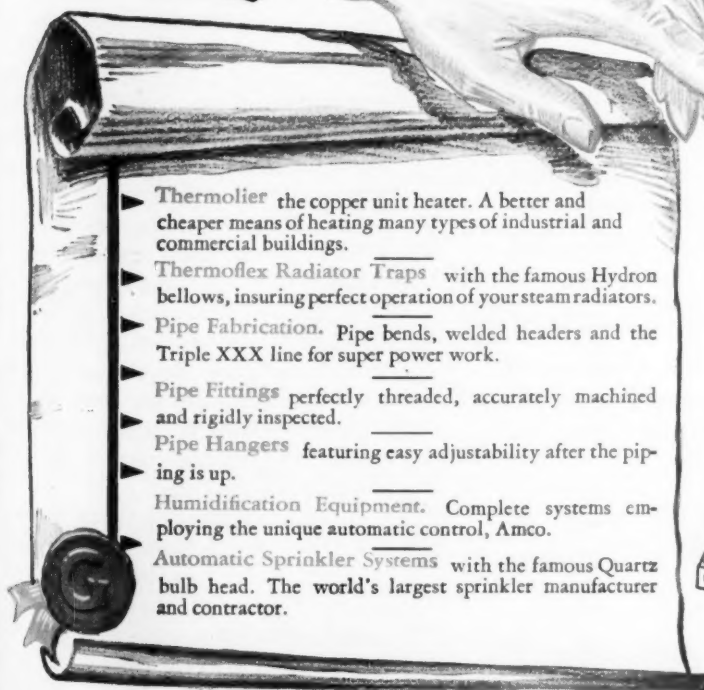
The heart of a Thermoflex trap is this strong, quick acting bellows. It will open and close the drain orifice millions of times a year with no signs of giving out.

To guarantee reliability under operating pressure and temperature, each trap is tested and certified by an engineer of the Pittsburgh Testing Laboratory. He affixes a certificate tag to each trap which passes his tests.

Grinnell Company is the exclusive distributor for these traps.



The ORGANIZING HAND *prepares for your needs*



► **Thermolier** the copper unit heater. A better and cheaper means of heating many types of industrial and commercial buildings.

► **Thermoflex Radiator Traps** with the famous Hydron bellows, insuring perfect operation of your steam radiators.

► **Pipe Fabrication.** Pipe bends, welded headers and the Triple XXX line for super power work.

► **Pipe Fittings** perfectly threaded, accurately machined and rigidly inspected.

► **Pipe Hangers** featuring easy adjustability after the piping is up.

► **Humidification Equipment.** Complete systems employing the unique automatic control, Amco.

► **Automatic Sprinkler Systems** with the famous Quartz bulb head. The world's largest sprinkler manufacturer and contractor.



GRINNELL COMPANY

Branches in all Principal Cities



Executive Offices: Providence, R. I.



A roster of famous ventilating projects *is a roster of Sturtevant!*

Empire State...the world's tallest building. All three of this country's vehicular tunnels...the Holland, Oakland-Alameda, and Detroit-Canada. The world's largest high school...the Central Senior at Trenton, New Jersey. And the mammoth Atlantic City Auditorium...unrivaled in size and facilities.

All of these notable buildings and tunnels are ventilated with Sturtevant equipment.

For every really outstanding ventilating project, Sturtevant Equipment has been chosen by the architects and engineers. This fact speaks for itself.

B. F. Sturtevant Company's main offices are located at Hyde Park, Boston, Mass., Chicago and San Francisco. Branch offices in principal cities.

Sturtevant

REG. U. S. PAT. OFF.

HEATING-VENTILATING AND POWER PLANT EQUIPMENT

When writing to B. F. STURTEVANT COMPANY please mention Nation's Business

neries and lumber camps are not as disastrous to operation, because an immediate radio call to the head office brings a tug with replacements.

The same condition has been found in the mining camps in northern Saskatchewan, Manitoba and Ontario. Here mining companies developing properties far from railways use radio to keep in touch with head offices in Winnipeg, Toronto, Montreal or New York.

Western Canada Airways and the Ontario Provincial Air Service use radio for plane dispatching, forest-fire warnings and to handle commercial messages of traders, trappers, and prospectors.

In Ontario and Quebec many of the water-power companies have radio stations at their power sites for direct communication with Toronto, Montreal and Quebec.

All these stations use short or long wave lengths, depending on the distance of their communication, time and weather.

Although the stations described are in remote places, cities, too, are using radio for fast emergency work and as a service for private companies.

A chain of radio stations

JAMES RICHARDSON & Sons, Limited, grain brokers of Winnipeg, probably operate the largest chain of high-powered, high-speed radio stations of any company on the continent. The head office in Winnipeg operates three short-wave stations which are in constant use with grain quotations to the branch offices in Vancouver, Edmonton, Calgary, Saskatoon, Moose Jaw, Brandon and Montreal. Other stations at Montreal, Saskatoon, Moose Jaw and Calgary are in direct communication with the receiving station at Winnipeg.

The telegraph systems of the Canadian Pacific Railway and Canadian National Railway have taken out licenses for stations up to ten kilowatt power for use on short waves between all the important cities. These stations will be used not only when wires are down but also to speed up traffic, since short-wave radio makes possible transmission up to 250 words a minute.

In the same way the Canadian press has taken out licenses to build high-powered, short-wave stations in the principal Canadian cities. The stations already installed and those planned will help to bring even the most distant and inaccessible place into immediate connection with the cities and headquarters.

Radio has thus solved the problem of communication for the Canadian northland.

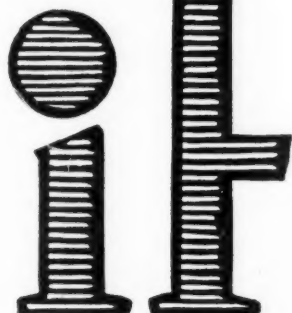
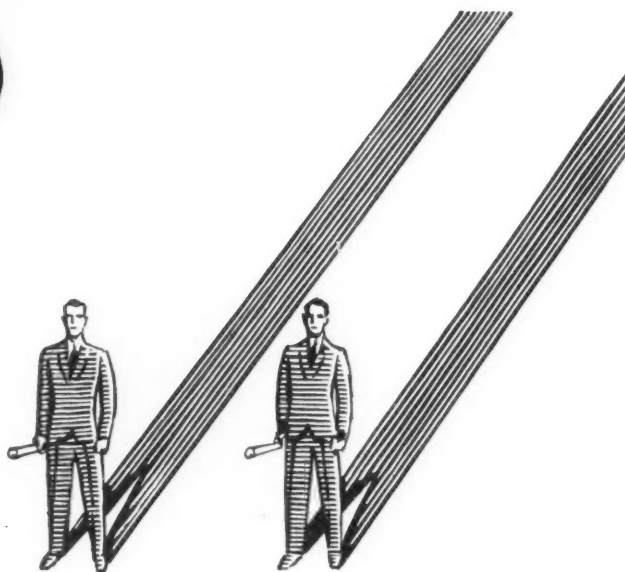
NEWALLOY SHEETS

(OF NIROSTA METAL . . .
A CHROMIUM-NICKEL STEEL)

ENAMELING SHEETS

ELECTRICAL SHEETS

FULL FINISHED SHEETS



YOU USE ANY TYPE OF
STEEL SHEET IN YOUR
PRODUCT...YOU CAN USE
THE NEWSTEEL ENGINEER

The Newsteel Engineer's experience and skill is not limited to any one special type of steel sheet. His diversified daily assignments keep him in intimate practical touch with all sorts of products, and their many, varied production methods. Not only does he afford expert service on chemical and metallurgical aspects of the sheet, but also on mechanical requirements—such as stamping, drawing and other forming. In this connection he has provided many manufacturers substantial savings in operating costs, reduced material waste and effected other production economies by determining the RIGHT sheet for the product. Take advantage of the Newsteel Engineer for the betterment of your product. His personal study of your problem costs you nothing.

THE NEWTON STEEL COMPANY, YOUNGSTOWN, OHIO

Boston Chicago Cleveland Detroit Grand Rapids
Indianapolis New York St. Louis
PLANTS AT NEWTON FALLS, OHIO, AND MONROE, MICHIGAN



NEWSTEEL

THE ENGINEERED STEEL SHEET

When writing to THE NEWTON STEEL COMPANY please mention Nation's Business

TOPICS FROM THE BUSINESS PRESS

By PAUL H. HAYWARD

"ONE of the unpleasantest features of the depression phase of the business cycle," remarks *American Bankers Association Journal*, "is the general decline in commodity prices which accompanies it." Declining prices "subdue the spirit of enterprise" for "no one cares to make commitments as long as there is a chance that the price paid today may be less tomorrow." However, it is pointed out, in the interest of factual accuracy,

it is necessary to regard the current decline with some perspective. In May, 1920, the index of wholesale prices of the Bureau of Labor Statistics stood at 247. During the next 12 months this melted to 145. This same index—now computed on a new basis—reached its high point, 98, in July, 1929. At the end of June, 1930, it rested at 86.8, a drop of approximately 12 per cent.

There are extenuating factors in this decline. In many cases prices have been reduced because of declining costs. In others the lowered price is the retributive exaction of mistaken efforts to support particular commodities at unwarranted levels. The collapse of such uneconomic plans as coffee valorization, rubber export control, Cuban sugar relief, is believed to be playing no small part in the decline in prices. . . .

Gradual price changes covering a long period need not, however, be a cause for alarm. In the long and slow decline there is ample time for affected parties in the community to make adjustments. The producer does not find his profits always squeezed out between high-value inventories and lowered prices. The debtor is not crushed by the swelling burden of his obligation. Nor is the national legislature compelled to consider fantastic schemes of price stabilization.



♦ Are You Behind the Times?

"OF course you think you are not behind the times, but are you right about it?" inquires the *International Confectioner*, and continues,

Every generation of business men has seen new ideas brought forward with the oncoming of a later crop of business men, and in every receding generation there have been

men who have dropped behind the times just because they have thought there could be no improvement on the ways of their own generation.

You are behind the times if you are seeking a solution of your troubles with competition in some sort of legislation that will hamper the new and protect the old.

You are behind the times if you cling to the old idea that a competitor is an enemy—actual or potential—to be fought tooth and nail. . . .

You are behind the times if you stand still while others progress, if you hamper the advancement of those who will not stand still, if you look back with satisfaction rather than ahead with enthusiasm.



♦ On Dealing with Bears

FROM California, by way of the pages of *Southern California Business*, comes this bit of cheering editorial comment:

A Kentucky business man felt that he could sell more goods—his trade was looking up, collections were better, times not really so bad, all things considered.

Making out his buying list, he went to New York, on the regular summer trip.

"And I hadn't been there a day, before I hurried home to see if everything hadn't gone to the dogs during my absence," he writes the *American Bankers Association Journal*.

New York, Chicago and points East are pickled in rumor.

The country is in for five years of hard times, they whisper; drastic cuts must be made in wages; the tariff has ruined our foreign trade; the Administration at Washington has failed—. . . .

This is a bull country, but about once every nine years the bears get an inning. At a certain turn of the business cycle, bear tactics are profitable, and the bear is a shrewd citizen. With rumor he hammers down prices of goods as well as securities. And the price of men—the value a man puts upon himself, his business, his future.

Rumor is effective against competition—many a pessimist has been scared out of business by a cock-and-bull yarn at the right moment. . . .

Our daddies used to say, in pioneer times, that if a man looked a bear square in the eye, the animal would never have courage to attack. . . . We need men who can look a bear rumor in the eye, size up the fellow

who is carrying it around, find out where he got it, and check and double check with the facts of everyday business conditions.

Handle a bear rumor that way, and it turns out to be chiefly a combination of growling and whining.

♦ A British View of Our Ships

THE British publication, *The Shipping World*, is convinced that America is determined to have a premier merchant marine. A recent British visitor to our shores is quoted as saying, "Whatever may be said or done in this or any other nation and however heavy the cost, the Americans intend to have a merchant navy second to none. . . ." The more or less veiled hostility of other nations to these ambitions, in this observer's opinion,

only feeds the fires which have been lighted by the shipping movement throughout the country.

The Americans feel that they should have a merchant fleet second to none as a complementary agent to the fighting fleet second to none conceded by the London Naval Treaty. It is not a matter so much of economic policy or even of safety. . . . It is largely a matter of national pride. The Americans are satisfied that the dollar can do almost anything. It has placed them foremost among the nations of the world.

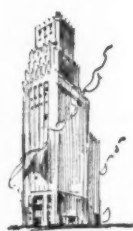
"Since we can afford to pay for ships, ships of war as well as ships of commerce, why the hell should not we have them?" That is the attitude which is being assumed. The American people may not have sea-sense, but they have acquired the ship-sense and there is not a ship problem—whether of construction, manning or operation—which in their confident opinion cannot be solved by the use of the dollar.



♦ A Spur to Salesmanship

TIMES being what they are in the average store, writes the editor of *Retail Ledger*, this is

most emphatically the most delightful and pleasant time to shop, for, at least in progressive stores, there is a most noticeable effort to be of the greatest possible service



OFFICE

1 HOUR
by messenger
1 MINUTE
by Teletype



FACTORY



Speed up business by connecting your office and distant factory with this machine that
SENDS TYPEWRITING BY WIRE

EVERY manufacturer whose plant or warehouse is located at a distance from his office loses hundreds of working hours annually by depending on messengers for the transmission of written data.

This costly waste of time can be prevented by installing Teletype . . . the Telephone Typewriter. It flashes typewritten messages over telephone wires at the rate of 60 words per minute, thus making it possible to send orders and specifications to the plant or warehouse as fast as a girl can type them.

Errors in transmission are practically impossible, as the sender has only to look at what she is writing in order to see what is being printed at the other end. Therefore even the most complicated data can safely be transmitted by Teletype.

By providing a typewritten record for filing at both ends, Teletype definitely fixes responsibility and reduces mistakes to a minimum. In all these ways it

repeatedly repays its moderate cost, which in many cases is no more than a messenger's wages.

Ask your local telephone company for further details!

Telephone typewriter service is invaluable between widely separated offices and factories or warehouses, as well as within large offices and plants. Ask the telephone typewriter department of your local telephone company for further details, or, if you prefer, write the Teletype Corporation, 1400 Wrightwood Ave, Chicago.

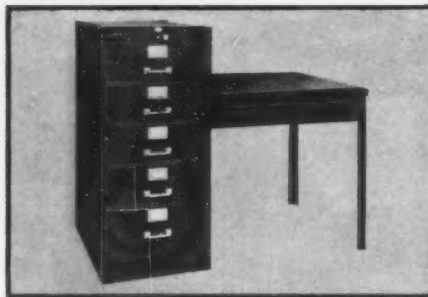
TELETYPE

**THE TELEPHONE
TYPEWRITER**

These DESKS

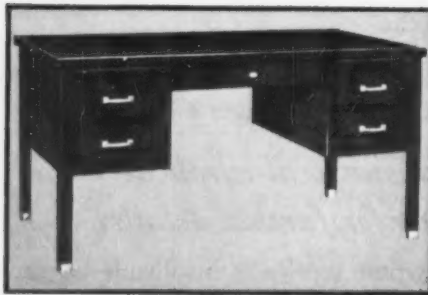
Speed routine work!

A HIGH speed desk for executive or general office use is this Style 2660 F. B. It has the finest steel construction throughout. The top is washable "Artolin," a perfect writing surface. Drawers glide smoothly on ball-bearing suspensions, and are interchangeable. Compartments are adaptable to the individual needs of the user. All hardware is cast bronze, and the footings have special Bakelite treads that protect the floors.



THIS Art Metal Card Record Desk brings as many as 125,000 record cards within reach of the operator. These desks are available either with one file, or with the posting desk placed between two files. The writing surface is green "Artolin" and the finish is olive green. The files may be equipped with trays for either 5 x 3, 6 x 4 or 8 x 5, cards.

CONTINUOUS Forms Desk—to speed up work of modern continuous-form typewriters and billing machines. The form rack slides on channel suspensions, thus allowing ample knee space. Forms feed easily from any compartment of the rack. At operator's right is a card file drawer, a cupboard for extra forms and a sliding shelf with compartments inside.



ART Metal Desk Style 1560-F4—Here's a desk that is ideal for general clerical work in large offices. It is built of fine steel, with drawers that glide smoothly. The top is dark-green, washable "Artolin," a perfect writing surface, and the desk is finished in rich olive green. Drawer compartments are equipped with adjustable partitions. All hardware is bronze.

Art Metal makes every type of equipment for every type of office. We shall be glad to furnish information on anything you may be interested in. Just check your wants in the list below.

Prominent Users of Art Metal Desks

Chase National Bank,
New York
T. A. T. Flying Service,
Ft. Worth, Tex.
General Cable Co., New York
Chattanooga Medicine Co.,
Chattanooga, Tenn.
Spicer Mfg. Co., Toledo, O.

- | | |
|-------------------------------------|-----------------------------------------------------|
| <input type="checkbox"/> Desks | <input type="checkbox"/> Upright Unit Files |
| <input type="checkbox"/> Plan Files | <input type="checkbox"/> Counter Height Files |
| <input type="checkbox"/> Fire-Safes | <input type="checkbox"/> Horizontal Sectional Files |
| <input type="checkbox"/> Shelving | <input type="checkbox"/> Postindex Visible Files |

Art Metal Construction Co., Jamestown, N. Y.
Branches and Agencies in 500 cities

Art Metal

STEEL OFFICE EQUIPMENT

When writing to ART METAL CONSTRUCTION CO. please mention Nation's Business

This was brought . . . to my notice when . . . I dropped into one of my favorite shoe stores to buy a pair of shoes, and for the first time in many years of shoe-buying witnessed an exhibition of real shoe selling. Not only was I fitted with more than the usual degree of care, but . . . the salesman seized the opportunity to impress upon me the virtue of his line as a whole. The leather, the construction, the method of manufacture, the type of heel used and six or seven other sales points were trotted out and put through their paces. As a result, there is not the slightest doubt where my next pair will come from.

"Yes," the manager admitted, in answer to a question of mine as I was leaving, "we are stressing salesmanship as never before. Previously we might have fitted a customer and let him walk out. Now we're after the next sale hot and heavy, and information about our shoes is, we find, the easiest way to insure that next sale. Incidentally, our sales volume for the year has gone well ahead of 1929—a pretty good indication of the fact that the plan pays immediate as well as future dividends."

♦ One Man's View of Efficiency

THE *Crockery and Glass Journal* editorially presents a letter with the comment that "in this era in which 'efficiency' has become a fetich" the views expressed therein are "at least evocative of serious thought."

"I have just returned from a trip through western Pennsylvania and northern West Virginia," the writer begins,

during which I called on about 50 plants in the ceramic field. Business at present is rather quiet with all of them, and none seems to know just what is the matter.

Many of the modern plants that today are working only four days a week forget that they are producing as much in four days as they used to produce in six. One large glass plant making bottles produces today as much glass with three tanks as formerly it produced with five, and the workmen are doing as much work in four and a half or five days as they used to take six to do. In other words it seems that efficiency has something to do with much of our employment.

Efficiency which in every plant in the country lays off men and still produces the same amount of goods produced previously may be efficient, but it leaves a shortage of people to buy the goods. I found examples of this type every place I visited. . . .

Efficiency in the production of catsup bottles lays off so many men it leaves none to buy the catsup. Moreover, what one plant gains by efficiency, they all gain; so that when one plant is able to cut prices by result of this efficiency, all other plants do likewise; consequently, there is less employment and a diminishing purchasing power.

Efficiency which creates unemployment in any plant, therefore, can hardly be considered practical efficiency. Efficiency may be economically correct according to the theorists, but where it secures its results by curtailing labor and creating unemployment, it certainly cannot be considered economically sound.

NEWS OF ORGANIZED BUSINESS

By WILLARD L. HAMMER

Canadian Commerce

THE three-year-old Canadian Chamber of Commerce has just begun publication of an interesting magazine *The Commerce of the Nation*, a periodical for Canadian Business Men.

The new magazine, according to an editorial in the first issue, will include regular departments in which will be treated, month by month, current development of interest to Canadian business men. Various aspects of Canadian economic life likewise will be given point and emphasis in its pages.

We warmly greet the new publication.

For Private Airports

THE Aviation Committee of the Camden County Chamber of Commerce, Camden, N. J., has taken a step calculated to prevent the spending of public funds for the building of a municipal airport.

Camden is well served by a privately owned airport. The resolution, it is thought, will put a stop to the agitation for a separate municipal airport. The resolution reads:

"The Aviation Committee of the Camden County Chamber of Commerce favors private ownership as against public ownership in aviation as in other lines of business and therefore opposes the expenditure of public funds for a municipal or county airport, unless Central Airport and other private aviation enterprises which are now fully meeting the community's needs shall fail to do so in the future."

Chamber Pamphlets

RECENTLY the Commercial Organization Department of the Chamber of Commerce of the United States made a study of the efforts of chambers of commerce to promote courtesy to visitors and new citizens on the part of the local people in general and salespeople in particular.

Many chambers submitted their experiences, explaining both their methods and the results obtained. These have been embodied in a booklet, "Courtesy

Campaigns and Hospitality Activities."

The Civic Development Department instituted a study of the city-manager form of municipal government, the particular object being to develop opinion

as to the success of the plan in the cities where it has been fairly tried.

Letters were sent requesting the judgment of local business men on the success or failure of this form of gov-

Where Business Will Meet in October

Date	Organization	City	Headquarters
1-3	Direct Mail Advertising Association	Milwaukee, Wis.	Hotel Schroeder
2	American Association of Wood Pulp Importers	New York, N. Y.	Uptown Club
2	Mid-West Shippers Advisory Board	Evansville, Ind.	
2-3	American Institute of Mining and Metallurgical Engineers (Petroleum Division)	Tulsa, Okla.	Hotel Mayo
3	Eastern Lumber Salesmen's Association	Philadelphia, Pa.	Bellevue-Stratford Hotel
6	American Institute of Marine Underwriters	New York, N. Y.	
6	Association of Limb Manufacturers of America	St. Louis, Mo.	Statler Hotel
6-7	Rocky Mountain Retail Clothiers and Furnishers Association	Colorado Springs, Colo.	
6-8	Advertising Specialty Association	Chicago	Hotel Stevens
6-9	National Stationers Association	Detroit, Mich.	Book-Cadillac Hotel
6-10	National Restaurant Association	Cleveland, Ohio	Public Auditorium
7-8	Fire Underwriters Association of the Northwest	Chicago, Ill.	La Salle Hotel
7-9	International Stamp Manufacturers Association	St. Louis, Mo.	Jefferson Hotel
7-11	American Title Association	Richmond, Va.	
8-10	National Association of Farm Equipment Manufacturers	Chicago, Ill.	Congress Hotel
8-10	National Federation of Implement Dealers Association	Chicago, Ill.	Sherman Hotel
9-11	American Hotel Association	San Antonio, Tex.	
12	Terminal Grain Weightmasters National Association	Chicago, Ill.	Sherman Hotel
13	Illinois Valley Manufacturers Club	La Salle, Ill.	
13	Spray Painting and Finishing Equipment and Manufacturers Association	Toronto, Canada	The Palais Royale
13-15	American Institute of Mining and Metallurgical Engineers	El Paso, Tex.	Hotel Hussmann
13-16	American Gas Association	Atlantic City, N. J.	Convention Hall
13-16	United Typothetae of America	Boston, Mass.	Statler Hotel
13-18	National Paint, Oil and Varnish Association	Toronto, Canada	Royal York Hotel
14	United States Independent Telephone Association	Chicago, Ill.	Stevens Hotel
14-15	American Paint and Varnish Manufacturers Association	Toronto, Canada	Royal York Hotel
14-16	Mississippi Valley Farm Equipment Association	St. Louis, Mo.	Arena Dairy Exposition Grounds
15	Cotton Textile Institute	New York, N. Y.	
15	Gummed Industries Association	Chicago, Ill.	
15	New England Confectioners Club	Boston, Mass.	Parker House
15-16	Chicago Rock Island R. R. Lines Surgeons	Hot Springs, Ark.	Arlington Hotel
15-17	Society of Industrial Engineers	Washington	Mayflower Hotel
15-18	American Institute of Accountants	Colorado Springs, Colo.	
16	American Asiatic Association	New York, N. Y.	India House
16-17	Tanners Council of America	Buffalo, N. Y.	Statler Hotel
20-22	International Association of Milk Dealers	Cleveland, Ohio	Statler Hotel
20-25	Dairy and Ice Cream Machinery and Supplies Association	Cleveland, Ohio	Public Auditorium
21-23	American Railway Bridge and Building Association	Louisville, Ky.	Public Auditorium
21-24	American Hospital Association	New Orleans, La.	Municipal Auditorium
21-25	Railway Electric Supply Manufacturers Association	Chicago, Ill.	Sherman Hotel
22-24	Casket Manufacturers Association of America	Washington, D. C.	Mayflower Hotel
23	American Power Boat Association	New York, N. Y.	
23	Pacific Coast Founders Association	San Francisco, Cal.	Sharon Building
23	Southern Textile Association	Greenville, S. C.	Poinset Hotel
23-24	Audit Bureau of Circulation	Chicago, Ill.	Stevens Hotel
23-25	International Association of Ice Cream Manufacturers	Cleveland, Ohio	Hotel Hollander
24	Rail Steel Bar Association	New York, N. Y.	Commodore Hotel
25	New England Manufacturing Jewelers and Silversmiths Association	Providence, R. I.	Providence-Biltmore Hotel
27-29	Mayonnaise Products Manufacturers Association of America	Atlantic City, N. J.	
28	American Home Magazine Publishers	Chicago, Ill.	Bismark Hotel
28-29	Southern Logging Association	New Orleans, La.	Roosevelt Hotel
28-30	Life Insurance Sales Research Bureau	Chicago, Ill.	Edgewater Beach Hotel
28-31	Association of Life Agency Officers	Chicago, Ill.	Edgewater Beach Hotel
29-30	New England Milk Producers Association	Boston, Mass.	
29-31	Association of Official Agricultural Chemists	Washington, D. C.	Raleigh Hotel

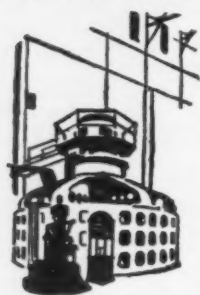
THE DOORWAY OF AMERICA'S FREIGHT ELEVATOR TRAFFIC



Enter grain steel, rubber, wood...exit flour, safes, tires, furniture. Practically every product of industrial America, in all, or part of its production process, passes through the gateway of a Peelle Door. For over a quarter of a century Peelle Doors have solved varied vertical traffic problems. More than shaftway safety enclosures...they have lowered manufacturing costs, saved time, lessened labor and reduced maintenance. Electrified...affording automatic entrance and exit at the touch of a button...from any desired control point, their greater efficiency is evident. Consult our engineers or write for catalog.

THE PEELLE COMPANY,
BROOKLYN, NEW YORK
Boston, Chicago, Cleveland, Philadelphia,
Atlanta, and 30 other cities. In Canada:
Toronto and Hamilton, Ontario.

PEELLE
FREIGHT ELEVATOR
DOORS



The Heart of Canada

If you are interested in the many advantages which this territory offers the manufacturer interested in Canadian, British Empire and world markets, you should read our booklet, "Industry's New Magnet," which is sent on request.

Department of Development

The Shawinigan Water & Power Company

Power Building • Craig Street West
MONTREAL, CANADA

A Factory Job Made Me An Executive

★ HE abandoned his white shirt for overalls and was promoted over the heads of those who remained in the front office. A leading article in the November NATION'S BUSINESS.

ernment, including the advantages and disadvantages found by their local experience. This opinion has been summarized in a pamphlet just published.

Copies of both pamphlets may be obtained from the National Chamber at Washington.

Kansas Civic Committee

THE Kansas City Chamber of Commerce recently announced appointment of a Civic Improvement Committee—a group to be responsible for the development of a ten-year program of public improvement. On the Committee are representatives of every geographical section of the city and of every outstanding business, racial, political, religious and civic group of the community.

Under this Committee will be 15 subcommittees, each developing a program on one of the various subjects: public buildings, parks and playgrounds, county improvements, sanitation and sewers, school improvements, public health and welfare, open air public gathering places, public safety, traffic ways, Blue Valley improvements, municipal auditoriums, water supply, wharves, levees and river-front improvements, airports, and a ten-year budget.

Chamber Plans Exposition

THE Indiana State Chamber of Commerce has announced the first Indiana Industrial Exposition, to be held in Indianapolis at the Exposition Building, State Fair Grounds, October 4-11.

The object of the Exposition is to present a cross-section of the manufacturing activities of the state. The State Chamber is extending invitations to individual members of all Indiana chambers of commerce to attend as guests of the state organization.

A Chamber's Trade Study

MANY cities are not enjoying their share of trade from the surrounding trade territory. The chambers of commerce and the merchants' associations study the causes, but fail to find reasons why one city has such a profitable trade territory while others seem backward.

In Burlington, Iowa, the aggressive chamber of commerce has put out a questionnaire which has been sent by the thousands to persons living outside of Burlington, but in the trade territory of that city.

There are fourteen questions and if they can secure answers to all of them, it will give a comprehensive view of the

ON SALES FLOORS AND AT BANK WINDOWS
IN OFFICES AND ON BUS LINES

NATIONAL CASH REGISTER PRODUCTS

HANDLE MONEY AND
RECORDS ACCURATELY,
QUICKLY AND AT
A LOW COST



National Cash Register and Charge
Phone in a department store



National Posting Machine at the
savings window of a bank

Wherever service and operating costs are given the greatest study and most careful consideration you will find National Cash Register products standard equipment throughout.

On the sales floors of department stores National Cash Registers give 30-second service on cash sales and National Charge Authorizers provide 20-second service on charge sales.

In banks National Posting Machines speed up service at the savings window and give both bank and depositor a protection against error that has never before been possible.

In general offices National Accounting Machines handle every item of bookkeeping quickly, accurately and economically.

On bus lines and electric railways National Fare Registers speed up service and give complete control of money collected.

Throughout the world, wherever money is handled or records kept, National Cash Register products are an essential to successful management.

THE NATIONAL CASH REGISTER COMPANY

World's Outstanding Producer of Accounting Machines and Cash Registers

DAYTON, OHIO

When writing to THE NATIONAL CASH REGISTER COMPANY please mention Nation's Business

Leadership

Leadership is the guiding power of business at work. It represents the confidence and faith of the many in the few. It is responsible for the profits of business—for the livelihood of workers. It is the trusteeship of success.

Especially do conditions today demand real leadership—knowledge, vision, fighting determination and courage. Dependable information must be more constructively used. Inefficiencies must be eliminated, more competent organization built up, better methods adopted—to prevent loss and insure profits and good-will.

Leadership is blind without knowledge. Knowledge of one's business comes from the analysis of facts incident to sound planning, and from the frequent comparison of operating results with a well-made budget. Such analyses and comparisons point out weakness and waste, suggest better methods, indicate new sources of profit. They are chart and compass to renewed progress and greater success.

ERNST & ERNST

ACCOUNTANTS AND AUDITORS
SYSTEM SERVICE

AKRON	DALLAS	HOUSTON	NEW YORK	SAN FRANCISCO
ATLANTA	DAVENPORT	INDIANAPOLIS	OMAHA	SEATTLE
BALTIMORE	DAYTON	JACKSON, MISS.	PHILADELPHIA	TAMPA
BIRMINGHAM	DENVER	KALAMAZOO	PITTSBURGH	TOLEDO
BOSTON	DETROIT	KANSAS CITY	PORTLAND, ME.	TULSA
BUFFALO	ERIE	LOS ANGELES	PROVIDENCE	WACO
CANTON	FORT WAYNE	LOUISVILLE	READING	WASHINGTON
CHICAGO	FORT WORTH	MEMPHIS	RICHMOND	WHEELING
CINCINNATI	GRAND RAPIDS	MIAMI	ROCHESTER	WILMINGTON, DEL.
CLEVELAND	HARTFORD	MILWAUKEE	ST. LOUIS	WINSTON-SALEM
COLUMBUS	HUNTINGTON,	MINNEAPOLIS	ST. PAUL	YOUNGSTOWN
	W. VA.	NEW ORLEANS	SAN ANTONIO	

mercantile situation around Burlington. To obtain more frank answers, patrons were not asked to sign their names. The questions are:

1. Are the merchants and clerks courteous and efficient?
2. What, in your opinion, are the most popular stores and why?
3. Is there an unpopular store, and if so why do you consider it unpopular?
4. About what proportion of your groceries are bought in chain stores and about what proportion of your other purchases are made in chain stores?
5. Do you prefer independent or chain stores in the following lines: groceries, women's clothing, dry goods, shoes, men's clothing, furniture, hardware and drug store items?
6. Do you prefer to pay cash or take advantage of credit facilities for the above named items?
7. Indicate stores you are dissatisfied with in buying above articles and tell whether price, assortment or quality causes your dissatisfaction.
8. Tell what per cent of your purchases are made from mail-order houses and why.
9. What form of advertising appeals to you most: Burlington newspaper advertisements, circular letters, hand bills, billboards, mail-order catalogs, radio or friends' suggestions?
10. Has Burlington satisfactory parking space and traffic regulations?
11. Has Burlington satisfactory roads in trade territory?
12. Are policemen and public officials courteous?
13. Do you consider Burlington a friendly and up-to-date city?
14. What improvements do you suggest?

The answers given to these questions will be a revelation to many a self-satisfied merchant. Suppose a large number of answers designate one store as unpopular and they say why this store is unpopular. This information will be highly enlightening to the merchant in question if he isn't too angered by such accusations.

The writer was never more impressed with the appeal of advertising than in the case of a near neighbor, who was away from home much of her time. On her return home after one of these absences, there was to be a dollar day, and she, an inveterate bargain hunter, had not yet subscribed for a paper. She went to a neighbor's, took their paper and sitting down on the back porch with pencil and paper, spent fully an hour and a half writing down the bargains which appealed to her.

The last five questions if answered

A FEW CENTS Give You FILING SAFETY

INEXPENSIVE ACCO FASTENERS

I protect your important papers and compel filing accuracy, thereby saving reference time of clerk and executive.

Two prongs on a broad base and a lock compressor firmly bind papers together. Can be used in any standard filing folder. The first filing operation is the last.

Write for samples, giving dealer's name.

AMERICAN CLIP COMPANY, Long Island City, N. Y.
Also available in Can., Mex., Toronto

ACCO FASTENERS

Lithographed Letterheads

\$1.25 PER 1000 COMPLETE

IN LOTS OF 50,000
25,000 at \$1.50—12,500 at \$1.75—6,250 at \$2.25 or 3,125 at \$3.25 per 1000
Prices include Paper and Delivery in Greater New York

ON OUR 20 LB. WHITE PARAMOUNT BOND

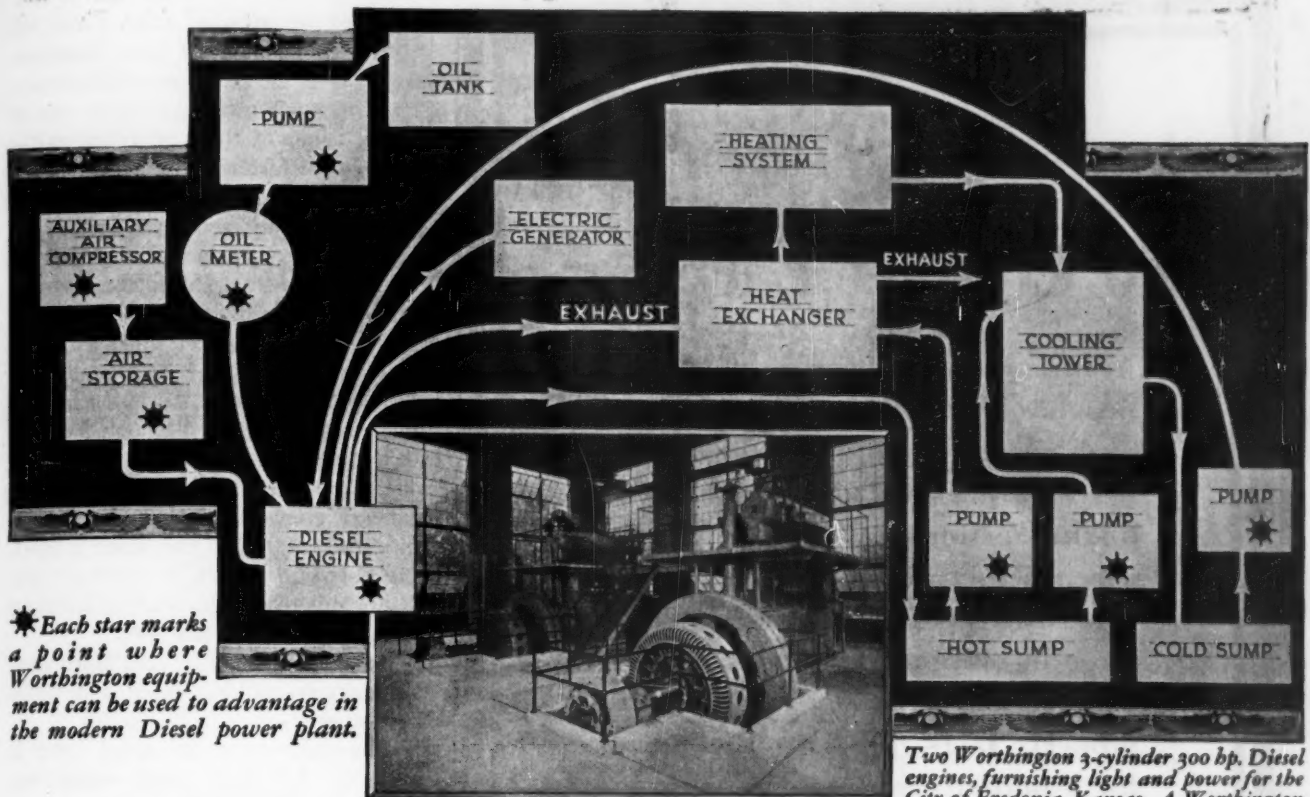
A Beautiful, Strong, Snappy Sheet

ENGRAVINGS AT ACTUAL COST

GEO. MORRISON COMPANY

550 West 22nd Street New York City

SEND FOR BOOKLET OF PAPER AND ENGRAVINGS



Two Worthington 3-cylinder 300 hp. Diesel engines, furnishing light and power for the City of Fredonia, Kansas. A Worthington 6-cylinder 600 hp. engine has been added to this plant.

Diesel Engines *plus* Auxiliary Equipment

IN the installation of Worthington Diesel power plants, municipalities and industrial organizations find a distinct advantage in specifying Worthington auxiliary equipment as well . . . compressors, air receivers, meters, pumps and Multi-V-Drives.

This procedure serves to focus responsibility on Worthington, and brings to the user the full measure of benefit from Worthington's recognized engineering skill and high standards of manufacture.

Write to the nearest Worthington office for information on the type of equipment in which you are interested. A new 48-page illustrated bulletin, S-500-B2A, describing Worthington vertical air-injection Diesel engines has just been completed. *May we send you a copy?*

PUMPS COMPRESSORS <i>Stationary and Portable</i> CONDENSERS <i>and Auxiliaries</i> FEEDWATER HEATERS	GAS ENGINES DIESEL ENGINES WATER, OIL and GASOLINE METERS MULTI-V-DRIVES CHROMIUM PLATING
<i>Literature on Request</i>	

WORTHINGTON⁵⁰⁻²⁶

WORTHINGTON PUMP AND MACHINERY CORPORATION

Works: Harrison, N. J. Cincinnati, Ohio Buffalo, N. Y. Holyoke, Mass.

Executive Offices: 2 Park Avenue, New York, N. Y.

GENERAL OFFICES: HARRISON, N. J.

District Sales Offices and Representatives:

ATLANTA	CHICAGO	DALLAS	EL PASO	LOS ANGELES	PHILADELPHIA	ST. PAUL	SEATTLE
BOSTON	CINCINNATI	DENVER	HOUSTON	NEW ORLEANS	PITTSBURGH	SALT LAKE CITY	TULSA
BUFFALO	CLEVELAND	DETROIT	KANSAS CITY	NEW YORK	ST. LOUIS	SAN FRANCISCO	WASHINGTON

Branch Offices or Representatives in Principal Cities of all Foreign Countries

When writing to WORTHINGTON PUMP AND MACHINERY CORP. please mention Nation's Business



To Correct Earnings

Accuracy of an earning statement depends on the accuracy with which each account is appraised. Error in determining depreciation, error in distinguishing between capital and expense in plant expenditures, distorts net profit just as much as error in computing receipts. American Appraisal Service, determining property facts, provides the means for avoiding error, for assuring accuracy in earnings.

THE AMERICAN APPRAISAL COMPANY

New York • Chicago • Milwaukee
and Principal Cities

AN INTERNATIONAL ORGANIZATION

truthfully, could be made into a textbook for the study of cities. There will be many answers to these questions which will be most uncomplimentary and which will give a composite view of the opinions of their neighbors to the citizens of Burlington.

The automobile and hard roads have brought city and country nearer to one another. There was a time when a town twenty miles from Burlington was reasonably sure of holding a large part of the business at home. Then a trip to Burlington was an event. But distance has been annihilated. The town only 20 miles away considers itself only a suburb of a larger city.

But on the other hand if there is a fancied grievance against the nearest city, the automobile has made it possible to go still further to a friendly city.

For this reason the last five questions should be given careful heed.

Take question 10: Has Burlington satisfactory parking space and traffic regulations?

The man from the small town is used to following traffic regulations, but if he comes into the city and finds all parking space utilized by the cars of the merchants and their help, so that he must park eight or ten blocks away from the trading center, he doesn't like it, and he'll not hesitate to say so if given such an opportunity.

Since most cities are making every possible effort to improve their roads of approach, we shall hope this question will not be too hard on the merchants.

State Chamber Publications

THE Oregon State Chamber of Commerce has published a pamphlet, "Oregon," showing briefly the resources of that state. It is an exceptionally clear presentation. Special emphasis is given agricultural phases.

The Illinois Chamber of Commerce has likewise published a small volume, "Illinois: Resources; Development; Possibilities." There is a different viewpoint as the basis of the Illinois book: Illinois, being the third state in manufacturing, the first emphasis is on industry and trade rather than agriculture. Nevertheless, there are four chapters on agriculture.

The marked difference in treatment is that "Oregon" is divided and treated by counties after the introductory chapter. "Illinois" is, however, treated by such subjects as "Government," "Marketing of Farm Products," "Mineral Resources," and "Banking and Finance," throughout.

JOSLIN'S ECLIPSE TIME STAMP

Greatest Value
Ever Offered! **\$17.50**

The Stamp with a Memory!
Durable - Efficient - Lightweight
Convenient - Attractive

Records time, date and other data on office and factory correspondence, forms and other routine records. Protects profits. Speeds up work in process. Assures permanent records. Dust-proof nickel-plated case protects accurate clock. Lasts a lifetime. Priced at only \$17.50 each.

Pin Coupon and Check to Letterhead—then Mail

Mail Today

A. D. JOSLIN Manufacturing Co.,
Manistee, Mich., U.S.A.

☐ Send catalog
☐ Enclosed find \$17.50 for Time Stamp.

Name
Address
City State



Distribution in Buffalo

A business organization established more than thirty five years, highly successful and Nationally known in an industry trading in a highly specialized product is desirous of engaging in territorial distribution of a well known product or line as district or local wholesale distributors.

There is available space, adjacent to the headquarters of this organization, of about 7500 square feet of floor space in the busiest section of Buffalo.

Bank and other business references will be given.

Address Peter Meyer, President
Buffalo Optical Co.
559 Main St., Buffalo, N. Y.

SOLID KUMFORT

Bentwood

FOLDING CHAIRS

for Every Purpose

WRITE FOR BULLETIN

LOUIS RASTETTER & SONS CO.
1412 WALL ST., FORT WAYNE, IND.





PIEDMONT CAROLINAS SETS 8 YEAR SALES RECORD

Year after year a record number of electric ranges has been sold to the people of Piedmont Carolinas. This year's sales exceeded those of 1929 by over 7.7 percent.

Electric cooking stoves are generally accounted as luxuries; why, then, are residents of Piedmont Carolinas able to purchase them more heavily than other sections of the country?

The answer is found in the level of employment and wages general throughout this region. It is evidence of the prosperity produced by our active industries.

More than that, it testifies to an important fact true of all industry: Manufacturers who are able to place finished goods on their shipping platforms at marked production savings are best able to maintain their sales year after year.

With large and important industries well established in widely diversified lines, and with the nation's leading sources of many important raw materials being actively worked, the level of employment and consequent maintenance of purchasing power here is correspondingly stable and even.

Piedmont Carolinas' production economies are due to permanent natural advantages that are peculiar to this foothill region, advantages not shared by any other section of the country:

The population is predominantly white, 99% native born, composed

of energetic, ambitious racial stocks. Three quarters of the available labor is still on farms.

Raw material sources are well developed yet not even approaching depletion.

Water-generated electric power is derived from the neighboring mountain region, one of the heaviest rainfall areas in the country. (Piedmont Carolinas has fewer rainy days per year than any other important industrial section.)

Modern centralized schools serve even the remote rural counties. The towns and cities have schools that are unexcelled. Splendid colleges and universities are everywhere throughout this section.

Modern paved highways form a network over the whole region, knitting all parts together.

Both school and road-building are accomplished programs—not mere projects for the future.

Get the facts. You will find them briefly marshalled, yet complete, in this book, **PIEDMONT CAROLINAS, WHERE WEALTH AWAITS YOU**. Sent to manufacturing executives on request. Address, please, Industrial Department, Room 107, Power Building, Charlotte, N. C. Your letter, asking for this book or for any additional information, will receive a prompt and courteous response.

DUKE POWER COMPANY
SOUTHERN PUBLIC UTILITIES CO.
AND OTHER ALLIED INTERESTS

★ **RIGHT NOW**
★ **BIG SALES OPPORTUNITIES FOR**
★ **584 AVERAGE SIZE FACTORIES**

★ Carolina people right now buy from distant states goods equal to the output of 584 average size manufacturing plants in 10 classes of industry alone!

★ In 22 other lines the Carolinas import many additional millions of dollars' worth of goods every year.

★ To all these 32 types of manufacturers, Piedmont Carolinas offers marked savings in production costs, abundant raw materials nearby, and an at-the-door market that will keep them busy for years to come.

★ If you make any of the following goods it will be of distinct advantage to you to get the Piedmont Carolinas book of manufacturing and marketing facts:

★ Machinery, men's shirts, meats (fresh and smoked), canned goods, confectionery, clay products, aluminum ware, electric fixtures and appliances, aircraft, women's clothing, wood products, window shades, buttons, brooms, brushes, shoes, soap, rayon, roofing, glass, chemicals, ceramic wares, hosiery, leather goods, disinfectants, paint, paper products, thrown silk, trunks, tires and rubber goods.

★ *For all these lines there are special advantages.*
★ *Find out about them.*





The ten-cent stamp on this old letter brought a price of \$10,000

Ten Cents Grows into \$10,000

By JAMES L. WRIGHT

Washington Correspondent, the Buffalo Evening News

GIVE up. Time was, as they used to say in telling stories, when the neighbors thought I would make a business man. My father, perhaps with pardonable parental pride, looked to the future through rose-tinted glasses.

"My son," said he, "some day you will be the Horse-radish King of New Hampton."

Once, in a more expansive mood, he even predicted that I would be the horse-radish king of the whole of Chickasaw County, Iowa.

Those glowing prophecies of prosperity, profits and plutocracy were based on solid, if not frozen ground, because as soon as the frost was out in the spring I hied myself up the railroad track to dig horse-radish, grate it, and carry it in a shoe box from door to door. Those were the "maidless" days and few had the two dollars a week for a "hired girl," so you always dealt with the "lady of the house."

My business acumen which won me early recognition in the fields of finance and the busy marts of trade in New Hampton, that thriving metropolis of 2,500 souls, if you were willing to take the local estimates, and repudiate the United States census as unreliable, was

● **IT'S** a comparatively simple matter to make an article bring one hundred thousand times its original price—if that article is scarce enough and is desired enough. Both the latter conditions prevailed in the instance recited here, and a bit of clever marketing by a banker who knew but little about the commodity he was called upon to handle brought just that return

clearly shown in two conspicuous ways:

First, my arrival on the kitchen stoop always was simultaneous with the forking from the hot grease of the week's batch of doughnuts. I never missed a doughnut, nor paid for one.

Second, when I sold a glass of horse-radish for a dime, I made the housewife give back the tumbler.

Those glasses cost two cents each, and the overhead was more than an heir apparent to the kingdom of New Hampton could stand.

Can't find bank errors

THERE were other reasons, too, for believing I would be a business success. I was always good in arithmetic. English was my worst study, so I started writing for a living. Maybe it's just as

well, because long ago I gave up trying to find that the bank had made a mistake in my balance. Now when the canceled vouchers come in each month, and I find that the bank's statement does not square with the stubs of my check-book, I just write on the margin, "To correspond with bank," and go ahead with another month of inaccurate addition and subtraction. You can waste so much time trying to catch the bank in one measly mistake.

But those are not the things which have convinced me that I am more of a success playing the keys of a typewriter than I ever would have been playing the keys of a cash register. The convincing, the indisputable proof, has come to hand. When I find that a postage stamp, which will not even carry a letter, is worth 100,000 times its sale price,

He had never thought of Diesels for *his* plant . . .

but when he
saw the savings

LIKE a good many business executives, to him power was just a staple necessity of manufacturing which you paid for as inevitably as taxes. As for Diesel Engines? Outside of submarines during the War and press items of a new airplane engine making spectacularly low cost flights, he had heard little of Diesels and had never thought of them in connection with his factory.

Then came a business recession and items of cost previously taken for granted came under searching scrutiny. Even power costs were questioned. His Plant Engineer suggested Diesel-generated current as a possible source of savings.

So naturally he turned to America's largest manufacturers of Diesel Engines for information. He frankly told the Fairbanks-Morse engineer who answered his inquiry that he was skeptical, but if a saving *could* be made he wanted to know about it. To his surprise, the engineer did not at once launch into a sales talk. He merely asked the Executive for permission to check present power costs with the plant auditor and consumption with the plant engineer.

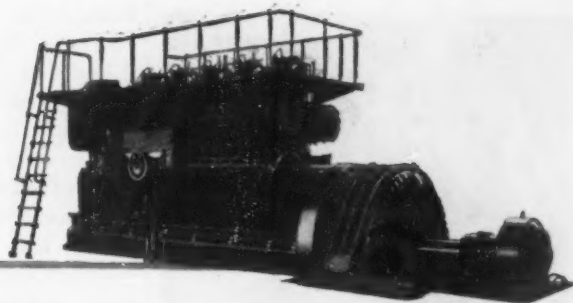
In a few days the F-M engineer was back. He had put meters on the plant and knew the facts about its use of power. He had present costs from the auditor's books. He showed the Executive what a Fairbanks-Morse Diesel would generate that same power for, at the price of fuel and lubricating oil prevailing in that locality. To these he added the cost of attendance and a liberal allowance for maintenance—and still the figures indicated such a radical saving that the Executive jumped at once to the question of the investment required to install the Diesel generators.

Then he learned about the Savings Payment Plan!

The Fairbanks-Morse engineer told him how he could put in the equipment at once and showed from his figures how in comparatively few months the Diesels pay for themselves and thereafter the factory would take the profits. The Executive couldn't pass that one up. He saw at once that these engines must reduce his power costs or Fairbanks-Morse could not risk a financing plan so advantageous to the buyer. He saw he was taking no chances and placed the order.

No fanciful story of savings is this. Fairbanks-Morse will gladly furnish from its records actual data on hundreds of engines purchased and financed in just this way. And also give actual dollars and cents proof of the savings the owners of

OA40.49



these engines are now making. Without obligation on your part a Fairbanks-Morse engineer will survey your power requirements and show you the savings possible with Diesels.

FAIRBANKS, MORSE & CO.

900 S. Wabash Ave., Chicago — and 32 principal cities

An interesting booklet describing F-M Diesel savings in many industries will be sent executives on request. Ask for Publication No. 3010.

FAIRBANKS-MORSE DIESEL ENGINES



MOTORS

PUMPS

SCALES



When writing to FAIRBANKS, MORSE & Co. or its branch offices please mention Nation's Business



NO DAUGHTER OF CAESAR ENTERED A MORE GORGEOUS POOL!

It's on the LEVIATHAN, World's Largest Ship... this magnificent Pompeian Pool... an architectural classic in onyx, tile and marble... and its cool, pure waters are silken solace to souls fired by sun and stirring deck sports. Yet the luxury of so regal a pool is but one of many courtly allurements that endear this mammoth ship to the sophisticated, critical traveler. There's the brilliant Club Leviathan, a night club gem... dancing to a perfect Ben Bernie orchestra... first run "Talkies"... Brokerage offices with continuous quotations... three distinct ship-to-shore contacts, including telephone... a scintillating cuisine that includes a la carte without charge... telephone in every stateroom... iced fruit juices or a tray of delicacies any night-time hour from your attentive steward. Sail on the LEVIATHAN, perfect transatlantic hostess.

UNITED STATES LINES

45 Broadway

New York, N. Y.

When writing please mention Nation's Business

there is no use for the interrogation point on "Maybe I am wrong."

Being in the habit of banking on the bankers and going broke with the brokers, I went to see C. J. Gockeler, vice president of the District National Bank of Washington, who had just sold a ten-cent stamp for \$10,000, after having had Wall Street bankers and multimillionaires throughout the United States bidding for this little piece of paper. Mr. Gockeler was one of the organizers of the Chamber of Commerce of the United States and I thought he must know something about business.

Why the stamp demand?

"IT'S the operation of the old law of supply and demand," said he. "There are only a few of these stamps in existence."

"I can understand the supply," said I, "but why the demand?"

"I do not understand that either," confessed the banker. "Youngsters start collecting stamps and multimillionaires pay for them. My experience in selling this stamp for \$10,000 has been a revelation to me, but I handled it just as any banker would handle a valuable article turned over to him for disposition."

"Miss Natalie Sumner Lincoln, who is the author of a number of detective stories and editor of the Daughters of the American Revolution Magazine, was rummaging through an old wicker basket in her workshop, a basket that had not been disturbed since the death of her mother nine years ago. There she found an envelope, addressed to one of her forebears and in the upper left-hand corner was a stamp, one of the provisional issues of postmasters. The letter was mailed in 1847."

"Prior to March 3, 1847, there were no regular government postage stamps but by a law enacted on that date they were authorized. Uniform rates of postage were established on the basis of five cents for each 300 miles distance. About two months after the enactment of the law, but before the Government could get printed and distributed its regular stamps, the Lincoln letter was mailed. At that time postmasters in a dozen or more places issued stamps of their own for the convenience of the patrons of their offices. This primitive stamp was issued by the Baltimore postmaster and proved to be one of the most highly sought after stamps of all the United States issues."

"Miss Lincoln had no hint of the real value of her find until she began to get letters and telegrams from stamp collectors throughout the country, offering to pay her expenses if she would bring

her stamp to New York or Boston for inspection. She then came to me as an old friend and asked me to handle it for her. I knew nothing about stamps or philatelists, but began collecting literature on them. I made Miss Lincoln promise that she would leave its sale entirely to me. Postal officials told us that stamp catalogs indicated the stamp had a value of \$6,000 or \$8,000. I decided to fix a price of \$10,000.

"One of the big stamp collectors from Boston wired me that he was on his way to Washington. I took him down in the safe-deposit vaults and let him look at the stamp. He said the price was too high, but he went to Miss Lincoln, and offered her \$8,500 for it. A day or two later a New York man wired that he was on his way to Washington, that he would be in the next day, and asked me not to sell it until his arrival. After his return to New York, I received a telegram from one of the biggest financial houses in the country that \$9,000 was being deposited in a Washington bank to my credit, and that I might have it by delivering the stamp before three o'clock that day. A few moments later the local bank called me up to tell me that \$9,000 had been deposited there to my credit. That offer was rejected."

"I was next offered \$10,000. I told the would-be purchaser to deposit the \$10,000 in a New York bank with which we transact business and have them wire me in code. That was done. The stamp was insured for \$11,000, and sent to New York for delivery after the bank had transferred the money to me."

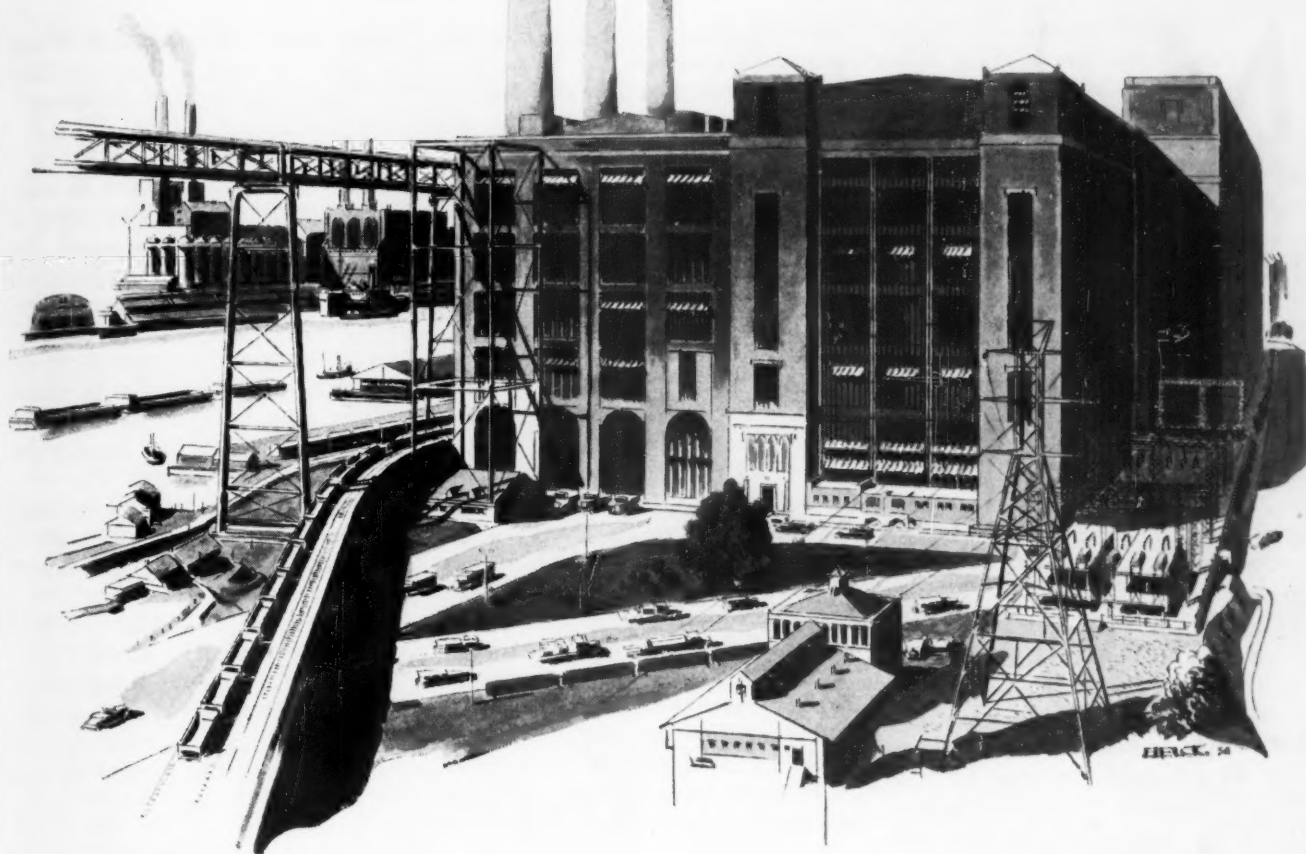
Readily worth the price

"THE purchaser since has written me, 'The stamp was readily worth that figure, because it is the finest copy of this stamp in existence, showing margins outside the frame line on both sides, the left margin being the sheet margin. It was used on an envelope, and in this respect it differs from the ordinary copies found, which usually come on letter sheets. This usage shows a comparatively early date for envelopes, which were just beginning to come into actual use. The "Paid" is the regular Baltimore blue "Paid," and the rate of postage is quite correct. It is likewise rather a late usage for the postmaster issues, as the regular government postage stamps came into use about two months later.'"

So all you have to do to make 100,000 times the original capital you invest is to find an old postage stamp. Why worry about margins of profit and shaving costs when it's as simple as that?

ELECTRIC POWER BUILDS BUYING POWER

... wherever you live



ELECTRICITY today enables the manufacturer to give you better goods for less money than ever before. His dollars—and yours—now go farther because of the time and labor saved by electric motors, heating and transportation—by electrified handling of material. The luxuries of our grandfathers have become the everyday necessities of modern life.

Homes everywhere are brighter, cleaner, more pleasant to live in today—yet hours of freedom have replaced the hours of back-breaking toil which were formerly

the price of a well-kept home. Just as electricity has extended the family budget to cover a wider range of necessities, so it is constantly providing new appliances to lighten our daily tasks and free us for the enjoyment of our new living standards.

From the time electricity was first made available for widespread application, Westinghouse has co-operated in every phase of electrical development. From machines that produce power, to appliances that serve in home, store, factory, mine, theater, transportation system or on farms, Westinghouse is producing equipment which helps electricity give you more for what you spend.



Tune in the Westinghouse Salute over WJZ and the coast-to-coast network, every Tuesday evening.

Westinghouse

WHAT I'VE BEEN READING

By WILLIAM FEATHER

President, the William Feather Company, Cleveland, Printers and Publishers

MOST books on religion bore me, and so I let a few weeks elapse before I bought "Treatise on the Gods" by H. L. Mencken. But I am not sorry that I spent \$3 for a copy, nor am I sorry that I gave up two evenings to the reading of it. I got nothing new out of the book about religion or theology, but I did get a new slant on H. L. Mencken. Any writer worth reading reveals his own personality in his writings, whether he writes about the gods or about professional baseball. Mencken is a notable proof of the rule.

THE Baltimore bridegroom always violently disclaims that he is a reformer and an uplifter, and yet in this treatise he appears in the identical frock so often worn by William Jennings Bryan and Roger W. Babson. He is out to Do Good, to save the people from their folly. Bryan thought and Babson thinks that the people will be saved by more religion. Mencken thinks that the people will be better off if they forget religion and settle down to the improvement and perfection of life here and now. That the man is a fanatic appears in the bibliography. Mencken must have been studying the literature of religion for a score of years. He has mastered 500 volumes. I suspect that he is as well read on the subject as anyone in the country, including the clergy.

UNDOUBTEDLY he has been impelled to compass this dreary task by a burning desire to save souls. If Mencken were not a disbeliever he would surely be an evangelist. He has the emotional equipment and the showmanship to make a super Billy Sunday. If his immediate ancestors had been deeply religious, one shudders to contemplate what might have become of this flower of the family tree. He would be no man

to say his prayers in the quiet and darkness of his chambers.

I suspect he would be enrolled as a general in the Salvation Army, and would beat a drum in front of the White House on Sunday afternoons. Such is his temperament.

Obviously Mencken's purpose in writing this attack on theology was the necessity of publicly baring his soul. At a revival meeting, when a traveling salesman gets "the vision," he goes to the front and loudly confesses his sins. Mencken felt he had to get something off his chest so he wrote a book. His purpose was to let the wayward know the truth.

Religion and poetry, he says, are much alike; both are based on the theory that it is better to believe what is false than to suffer what is true.

In the last chapter, he is in a mellow mood. Here he makes his most effective plea for converts to Menckanism. He scorns the notion that only religion gives a meaning to life, and then he says that life needs to have no meaning to be interesting to the civilized man.

"HIS satisfactions come," he continues, "not out of a childish confidence that some vague and gaseous god, hidden away in some impossible sky, made him for a lofty purpose and will preserve him to fulfill it, but out of a delight in the operations of the universe about him and of his own mind. It delights him to exercise that mind, regardless of the way it takes him, just as it delights the lower animals, including those of his own species, to exercise their muscles. If he really differs qualitatively from those lower animals, as all the theologians agree, then that is proof of it. It is not a soul that he has acquired; it is a way of thinking, a way of looking at the universe, a way of facing the impenetrable dark that must engulf him in the end, as it engulfs the birds of the air and the protozoa in the sea ooze."

What William James called the

"tough-minded" will find superb writing and hard thinking in this book. They will learn a lot about H. L. Mencken.

FEW of us read as rapidly as we could. The range in speed among adults is from two to ten words a second. The fast reader, therefore, can compass five times as much printed matter as the slow reader.

Slow readers often console themselves with the thought that they comprehend the subject matter more thoroughly, or enjoy the flavor of the author's style more acutely.

The facts do not sustain this supposition. Fast readers seem to get as much out of their reading as those who halt at every word.

To gain speed in reading, Robert S. Lynd offers several suggestions.

The first rule is to make a conscious effort to speed up. The trick is to train the eye to take in not a single word at each glance, but groups of words. In reading the eye moves not continuously, but by jerks and pauses. We do not read while the eye moves but when it stops. Poor readers will make as many as 15 eye-pauses in a single line. Even good readers will fixate three times on a newspaper line.

"Do not fixate on the first words in a line but somewhere inside the beginning of the line," counsels Lynd. "Likewise make your last eye-pause in the line somewhere short of the end of the last word. Experiment with the most effective way to 'hit' the lines of each type of subject matter you read."

The ability to read fast is one thing, and finding time to read is another. Most of us who seem to lack time for reading fail to take advantage of the 15 minute and half-hour periods that are scattered through the day and evening. The man who keeps good books and magazines close by him at all times and places finds that a day rarely passes that he does not have from one to two hours for reading. Those who "do a lot of reading" are usually half way through

"Treatise on the Gods," by H. L. Mencken. Alfred A. Knopf, New York. \$3.

SILVER WINGS

ACROSS THE SIERRAS

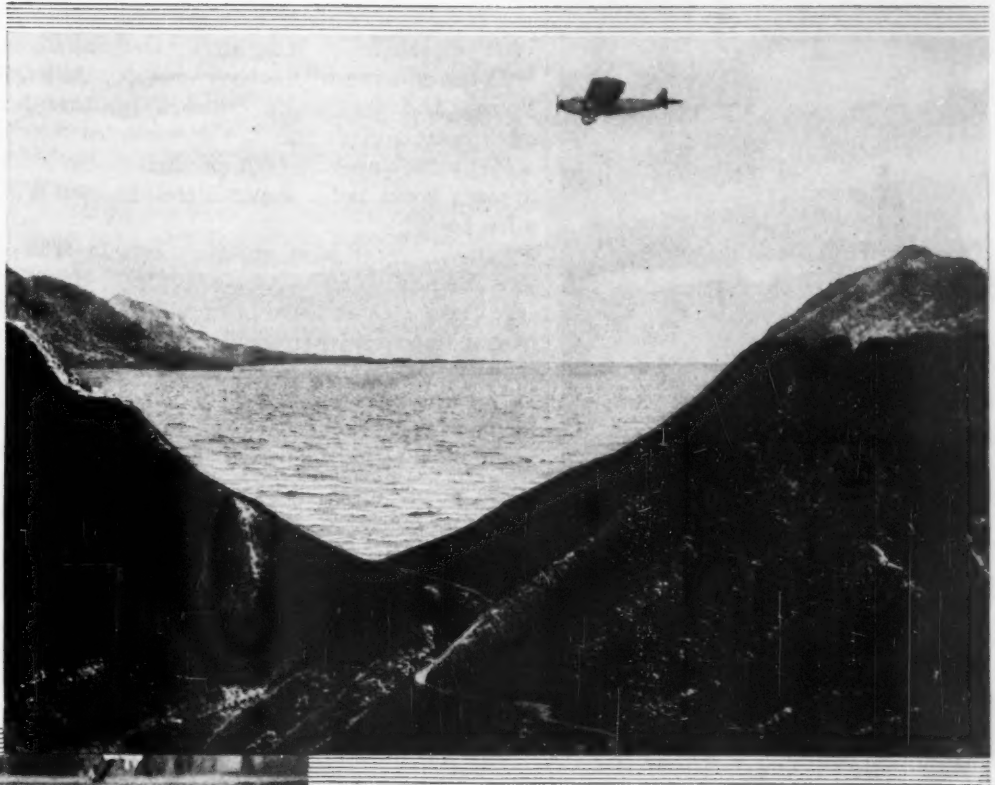
THE FORD PLANE

The Ford plane is planned, constructed and operated as a commercial transport. Built of corrugated aluminum alloys, it has great structural strength and durability, and is most economical to maintain in operation. The uniformity of its material is determined by scientific test. All planes have three motors in order to insure reserve power to meet and overcome emergencies. The engines may be Wright, Pratt & Whitney or Packard Diesel, totaling from 675 to 1275 horse-power. Ford planes have a cruising range of from 580 to 650 miles at speeds between 55 and 135 miles per hour. Loads carried from 3630 to 6000 pounds.

The capacity of these planes is 9 to 15 passengers and a crew of two (pilot and assistant). Planes can be equipped with a buffet, toilet, running water, electric lights, adjustable chairs.

The price of the Ford tri-motored, all-metal plane is exceptionally low—\$40,000 to \$50,000 at Dearborn.

Ford branches will be glad to give you information on the Ford tri-motored, all-metal plane in all models.



All the comforts of a yacht

THE Forty-niners looked up from their covered wagons in awe at the soaring California condor. Today their sons and daughters look down from comfortable armchairs, shadowed by tireless duraluminum wings that outfly the lonely condor as an eagle outflies a sparrow.

Whole fleets of all-metal, tri-motored Ford planes wing up and down the coast, from San Francisco to Los Angeles and southward to Agua Caliente . . . and from Los Angeles eastward to join the great airlines that reach across the continent to the Atlantic Coast.

The T. A. T.-Maddux planes are today essentially a part of the blue Californian skylines, their shadows drifting with the regularity of the mail over snow-capped mountains, orange grove and purple sea!

So dependable are these lines using Ford tri-motored, all-metal planes that during the first quarter of the year passenger traffic increased 500 per cent over 1929. Four additional services have been added to care for the increase in traffic. Passengers carried this year are already being numbered in tens of thousands.

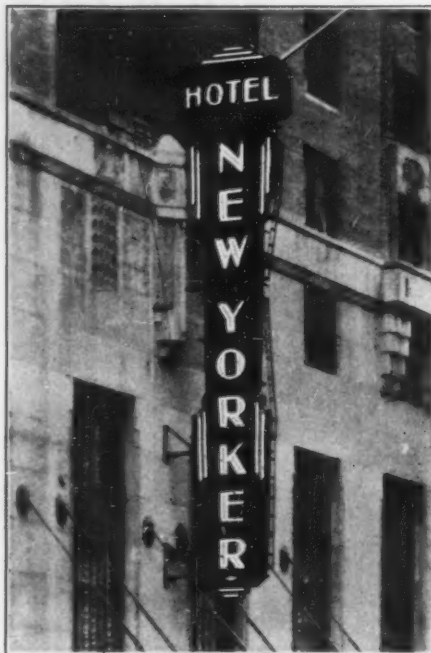
The T. A. T.-Maddux lines demonstrate daily that on the Western Coast business men are using air transportation as a positive public necessity.

FORD MOTOR COMPANY

Visitors are always welcome at the Ford Airport at Detroit

When asking for information regarding FORD PLANES please mention Nation's Business to the dealer

THE MOST-TALKED- OF DISPLAYS IN NEW YORK

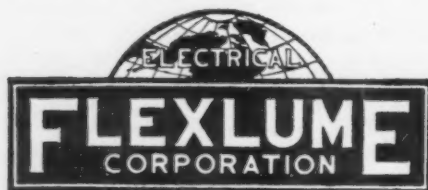


Brilliant red Flexlume neon blazes forth the name. Decorative green and blue border and details add to its distinctive beauty and effectiveness.

STRIKINGLY in harmony with the modernity of one of America's finest hotels, and splendidly expressive of its quality of service are the unique Flexlume neon displays adorning the two sides of the Hotel New Yorker.

Neon illumination has been perfected by Flexlume to give lasting service. Its electrodes, due to revolutionary design and form, function faultlessly. Its tubes, due to super care in eliminating impurities, maintain their brilliance of color indefinitely. These vital neon features, combined with Flexlume's known care in all details of design, construction and finish, insure satisfaction for the user . . . electrical advertising that is continuously effective and trouble-free.

The Flexlume representative in your city will be glad to make, without obligation, a survey of your requirements and submit our recommendations. Phone FLEXLUME in principal cities or write us to present our ideas of a display designed especially for your business and location; also the plan for enjoying the benefits of Flexlume electrical advertising on monthly service-rental. FLEXLUME CORPORATION, 1087 Military Road, Buffalo, N. Y. Factories also in Toronto, Can., Atlanta, Ga., Kansas City, Mo., and Houston, Tex.



NEON TUBE . . .
RAISED GLASS
LETTER . . . EXPOSED
LAMP OR COMBINATIONS

SALES AND
SERVICE OFFICES
IN CHIEF CITIES OF
U. S. AND CANADA

When writing please mention Nation's Business

a book while others are getting themselves comfortably settled.

THE foregoing had been written when the following letter was received from John D. Blaine of Campbell, Calif.:

"Since I never miss your 'What I've Been Reading' in NATION'S BUSINESS, and enjoy it very much, I did not miss what you said about 'King Mob.'

"Your criticism of the book appeals to me, and the book's criticism of modern life appeals also.

"Why can't we have both an interest in many books and a deeper interest in a few books?

"To skim much literature on old subjects for new points of view is a pleasure. But I for one would be of all men most miserable if I were condemned for the rest of my life to 'rapid reading.'

"In my own experience I find a few fundamental ideas that help me to appraise all the rest. I do not know any books containing such fundamental ideas that are best sellers, except as these ideas were taken from certain sources that were *not* presented in best sellers.

"And to me, the original source, or the nearest thing to it, is incomparably the most satisfactory. The mind that was profound enough to originate wrote in a style and flavor of language in keeping with the importance of his subject.

"The 'Story of Philosophy' I spent perhaps two hours over. I have not the slightest desire to look through it again—except to find the names of certain books that were not best sellers. It was splendid that so many people took a momentary interest in 'The Story of Philosophy.' It is pitiful that so few are willing to go to the original sources as Will Durant did. And I don't blame the occasional writer for tearing into the mob. Such a mood really derives from a great pity for 'the people.' They try so hard for happiness and achieve so little."

I AGREE with all that Mr. Blaine says.

To know Shakespeare, "Read his own words as often as you can and contrive to read as little as possible about him," advises Felix E. Schelling, professor of English literature at the University of Pennsylvania.

The masters are better than all the criticisms and digests and reviews of them. There is more inspiration in the Bible than in any sermon based on a Bible text. My knowledge of single tax and socialism is based on an early read-

ing of Henry George's "Progress and Poverty" and "Capital" by Karl Marx. Those two volumes are more enlightening than a shelf of books on the same subjects by their followers. The poetry of Keats and Shelley is vastly superior to appreciations of their writings.

IN my life I have read a hundred references to "Erewhon" by Samuel Butler, but not until last month did I read the book. "Erewhon" is a story of a colony where the people entertained queer ideas. Among their queer notions, one is of particular interest to business men.

The people of Erewhon admired men of wealth. Their reasoning was:

If a man made a colossal fortune in the hosiery trade and, by his energy, succeeded in reducing the price of woolen goods by the thousandth of a penny in the pound—such a man, they said, was worth ten professional philanthropists. So strongly were the Erewhonians impressed with this, that if a man had made a fortune of more than \$100,000 they exempted him from all taxation, considering him a work of art, and too precious to be meddled with. They said, "How very much he must have done for society before society could have been prevailed upon to give him so much money."

"Money," these people asserted, "is the symbol of duty, it is the sacrament of having done for mankind that which mankind wanted. Mankind may not be a very good judge but there is no better."

Butler confesses that this point of view used to shock him because he had been taught that a rich man could not enter into the kingdom of heaven; later he came to wonder whether a penniless man would be as welcome.

"People oppose money to culture," he says, "and imply that if a man has spent his time in making money he will not be cultivated—fallacy of fallacies! As though there could be a greater aid to culture than having earned an honorable independence, and as though any amount of culture will do much for the man who is penniless, except make him feel his position more deeply. The young man who was told to sell his goods and give to the poor, must have been an entirely exceptional person if the advice was given wisely, either for him or for the poor; how much more often does it happen that we perceive a man to have all sorts of good qualities except money,

"Erewhon, by Samuel Butler. The Modern Library, New York. 95 cents.

and feel that his real duty lies in getting every half-penny that he can persuade others to pay him for his services, and becoming rich.

"It has been said that the love of money is the root of all evil. The want of money is so quite as truly."

"Erewhon" first appeared in 1871. In this mythical colony, people were arrested and imprisoned for ill health. Embezzlers, defaulters, and other criminals were allowed their freedom and were treated as sick people. "Straighteners" were employed to reform the crooks. A crook employed a "straightener" just as we, in our civilization, employ a doctor.

The people of "Erewhon" abolished machinery. They feared that machinery was destined to eliminate mankind. Their line of reasoning was ingenious.

The Erewhonians also experimented with prohibition of meat. Their difficulties were identical with our troubles with the prohibition of liquor.

Sixty years have elapsed since this book was written, yet it is still as modern as the newest book of the month.

"Erewhon" is one of scores of modern classics included in a series known as the Modern Library. These books are of uniform size and binding, and sell for 95 cents. They are splendid bargains.

NO ONE else has ever written a book about the stock market that is at all like "Why You Win or Lose" by Fred C. Kelly. Kelly tells prospective speculators that they will probably lose money. He tells them why they will lose, and why they cannot help losing. The speculator who makes money must do the opposite of what people tell him to do.

When crowds are selling he must buy, when crowds are buying he must sell. He must be a contrary person and few of us are contrary.

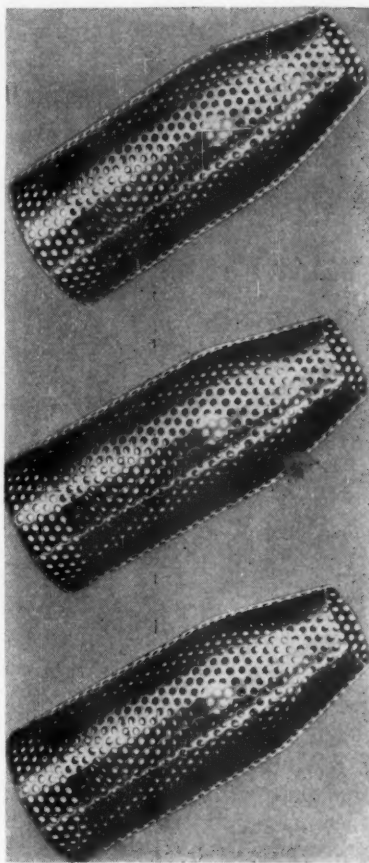
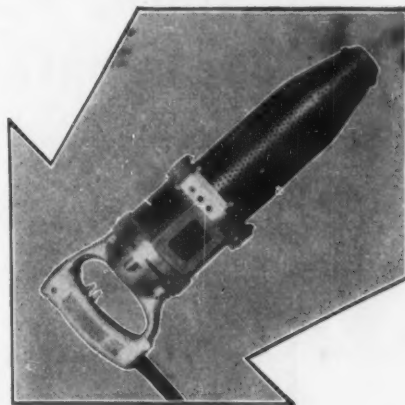
Kelly offers the golden rule of speculation, but warns that only a genius can follow it. The rule is:

"Buy stocks of companies that have shown gradually increasing earnings in essential industries, that is industries making articles that people can't well do without; but don't buy, no matter how good the stocks are, until the whole market has definitely quit going down on bad news; then sell all your stocks when the market has ceased to advance on good news."

The tragedy of most speculators is revealed in an anecdote Kelly tells of a

"Why You Win or Lose, by Fred C. Kelly. Houghton Mifflin Co., Boston. \$2.

TAKE FULL ADVANTAGE of the Multifold Possibilities of PRESSED METALS—



This 16-gauge perforated steel "barrel" is an example of G. P. & F. designing ability. Pressed metal not only made it possible to duplicate each barrel exactly, but also made each barrel lighter in weight, smoother in finish—making the completed tool a very good looking job.

G. P. & F. Has Fifty Years EXPERIENCE to Guide You

MANUFACTURERS as a whole agree that "product improvement" is today's most profitable sales leverage. A good many, with ears attune to this new selling tempo, are increasing sales volume and lowering production costs through the use of pressed metals.

This fact is well known. So is the fact that G. P. & F. are pressed metal specialists . . . and that when you utilize G. P. & F. stamping service you get the full advantage of the multifold possibilities of pressed metals.

This is true because nothing takes the place of experience and G. P. & F. has fifty years of that in designing and redesigning products or parts for pressed metal fabrication. G. P. & F. engineers can offer suggestions that will shorten designing time and get your new or improved product on the market sooner. In die making, too, G. P. & F. experience counts—both in original cost and quality of stampings.

And as for economical stamping production and on time deliveries, G. P. & F. assures you both with a 19-acre G. P. & F. plant, modern equipment, ingenious short cuts, 1500 skilled workmen and enormous purchases of raw material at lowest prices.

Send a blue print or sample part for suggestions and prices. There is no obligation.

GEUDER, PAESCHKE & FREY CO.

Sales Representatives in Principal Cities
in All Parts of the Country

1371 St. Paul Avenue, Milwaukee, Wisc.

G.P.&F. STAMPINGS



GEUDER, PAESCHKE & FREY CO.
1371 St. Paul Ave.,
Milwaukee, Wisc.

Please send your 1930 Business
in Harmony with Modern Progress, to the
address below. It is understood the writer is
not obligated.

Name _____
Company Name _____
Address _____

When writing to GEUDER, PAESCHKE & FREY CO. please mention Nation's Business

(A-1111)

BEFORE YOU COULD SAY
"ASK SMITH TO STEP IN" . . .

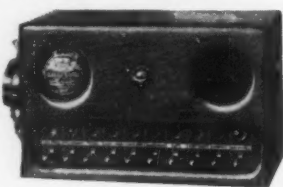
YOU'RE ALREADY IN CONVERSATION WITH HIM!

"SMITH" remains in his own office, but from the clear-toned loud speaker on your desk his voice is answering... responding almost to your thought, so fast is inter-office communication with the DICTOGRAPH!

The DICTOGRAPH SYSTEM of INTERIOR TELEPHONES acts with an ease that rivals radio . . . Your mere flick of a key puts you into voice-to-voice contact with any member of your staff, or any number of them at one time—*instantly*.

Your voice is transmitted through a sensitive microphone and the reply comes back to you as clearly as though the other person were beside you.

With DICTOGRAPH in your office, time and motion yield more profit. There is no "time out" for inter-office visiting... no choking the switchboard with inside calls. Every moment of every day, your entire organization is at your fingertips.



It will take only a few moments to show you DICTOGRAPH in actual operation on your desk—at no obligation to you . . . Consult the telephone directory for our address in your city. Or write direct to DICTOGRAPH PRODUCTS COMPANY, Inc., 224 West 42nd Street, New York, N. Y.

DICTOGRAPH
SYSTEM OF INTERIOR TELEPHONES

CENTRAL Pays its Losses Promptly



WHEN you suffer loss, you are vitally concerned about three things—how good is your insurance; how fairly will the loss be adjusted; how promptly will you get your check.

CENTRAL—invariably—mails loss checks the same day proof of loss is received. **CENTRAL'S**

reputation guarantees fair adjustments and quality of protection is unquestioned. **CENTRAL'S** dividend (30% since 1921) also means a substantial saving in cost.

CENTRAL policies are written through local agents. Full information, with name of nearest representative, on request.

**CHECKS
MAILED
SAME DAY
PROOF OF LOSS
RECEIVED**



MANUFACTURERS MUTUAL INSURANCE COMPANY

C. A. L. PURMORT, President

Home Office: VAN WERT, OHIO

*A Friendly
Company*

Fire, Automobile and Tornado Insurance for Select Risks

friend who, like thousands, could not bring himself to turn his paper profits into cash.

"He lost his entire fortune, about \$71,000, in the October, '29, smash—all but \$800," says Kelly. "After many sleepless nights, he was in such serious nervous condition that his physician ordered a trip to Lake Placid for a complete rest. I met him and his wife as they were starting for the train.

"We have been planning a trip together for years, a sort of second honeymoon," he told me, with a brave smile, 'but we never felt that we could afford it until now!'"

FOR potential speculators, this book is worth a dozen books that pretend to tell the layman how to make money in the stock market.

It gives the rules for intelligent and successful speculation, but it warns the reader on every page that he will probably be unable to follow them and it tells him why.

IN another book that has been on my desk for several days, entitled "Stock Market Theory and Practice" by R. W. Schabacker, financial editor of *Forbes Magazine*, I read in the last paragraph of the last chapter that anyone who studies the subject thoroughly may expect to be a successful market speculator.

Mr. Schabacker recommends the mastery of his book which contains 875 pages and suggests that the sincere student will also read the books which he mentions in his bibliography. I turned to the bibliography and counted a hundred titles.

Faced with such a chore, I wondered if the layman might not better turn his attention to the mastery of his own job, and if the profits from his own business might not be larger than he could expect from the market.

STILL another new book about the stock market has appeared. It is called "Introduction to Wall Street." It covers the same field as "Stock Market Theory and Practice," but is not as long and costs only half as much.

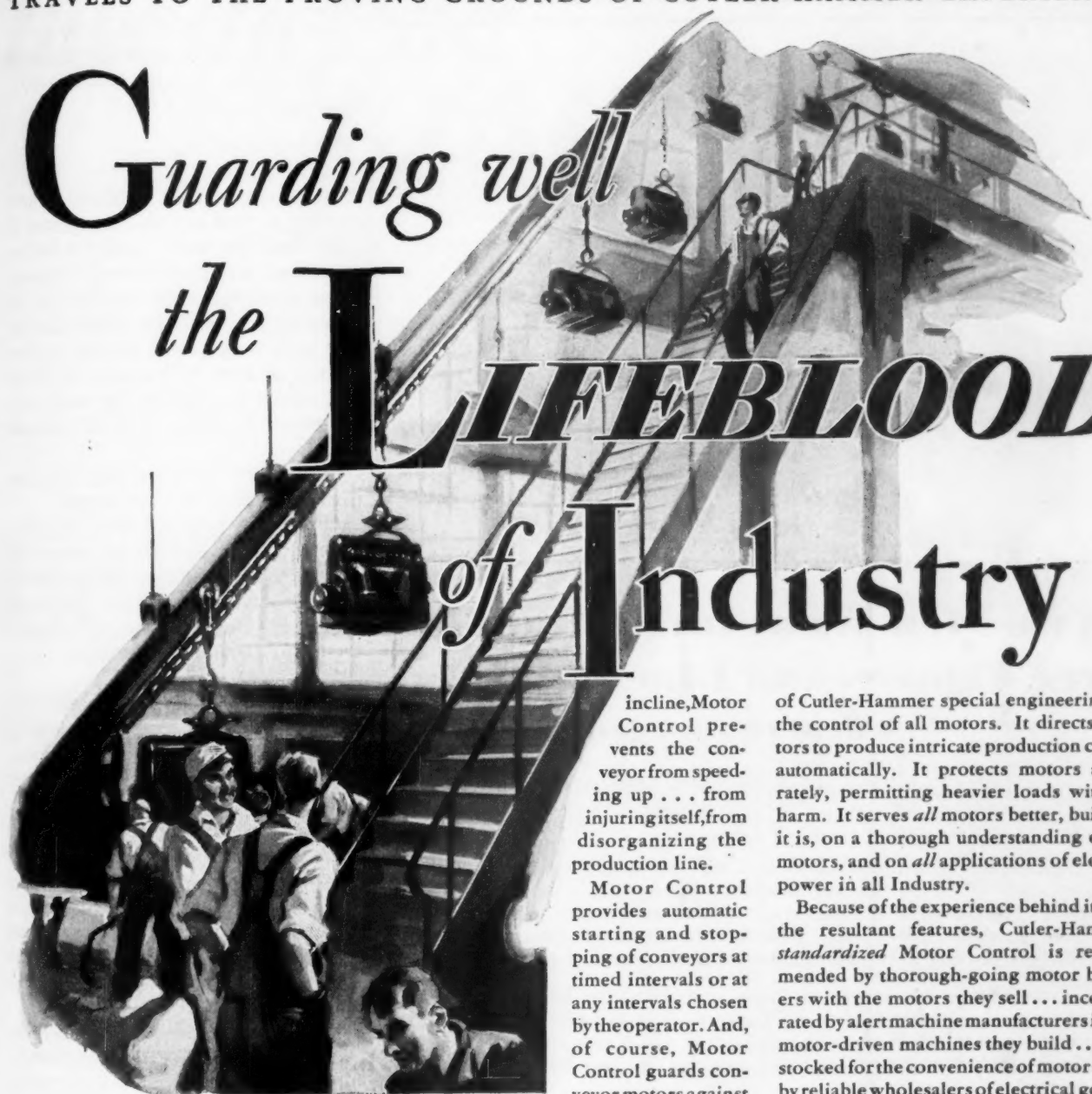
The examination of these volumes led me to ask why publishers are offering

"Stock Market Theory and Practice," by R. W. Schabacker. B. C. Forbes Publishing Co., New York. \$7.50.

"Introduction to Wall Street," by John F. Fowler, Jr. Harper & Brothers, New York. \$3.50.

TRAVELS TO THE PROVING GROUNDS OF CUTLER-HAMMER EXPERIENCE

Guarding well the **LIFEBLOOD** of Industry



incline, Motor Control prevents the conveyor from speeding up . . . from injuring itself, from disorganizing the production line.

Motor Control provides automatic starting and stopping of conveyors at timed intervals or at any intervals chosen by the operator. And, of course, Motor Control guards conveyor motors against overloads . . . gives

of Cutler-Hammer special engineering to the control of all motors. It directs motors to produce intricate production cycles automatically. It protects motors accurately, permitting heavier loads without harm. It serves *all* motors better, built, as it is, on a thorough understanding of *all* motors, and on *all* applications of electric power in all Industry.

Because of the experience behind it, and the resultant features, Cutler-Hammer *standardized* Motor Control is recommended by thorough-going motor builders with the motors they sell . . . incorporated by alert machine manufacturers in the motor-driven machines they build . . . and stocked for the convenience of motor users by reliable wholesalers of electrical goods.

CUTLER-HAMMER, Inc.

Pioneer Manufacturers of Electric Control Apparatus
1251 St. Paul Ave. MILWAUKEE, WISCONSIN

TO modern Industry, conveyors contribute that steady, speedy, rhythmic flow of materials, parts, and finished products which is the lifeblood of profitable production. Any conveyor replaces so many men, and the output of so many other men depends on it, that intolerable losses occur when it stops. Thus, a conveyor aptly illustrates the tremendous savings electric motors earn when adequately protected . . . the importance of their correct control.

Modern Motor Control prevents most conveyor tie-ups . . . and shortens the duration of the few interruptions which nothing can prevent. Should a chain break on a conveyor running up an incline, Motor Control stops the conveyor instantly, and sets a brake to hold the chain from running back . . . shortening the repair job, protecting the material carried. When a load on a conveyor starts down an

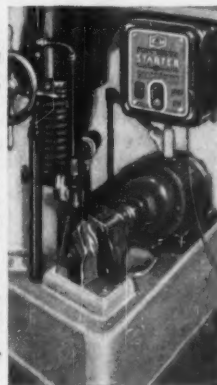
them the protection every motor deserves.

In developing Motor Control for conveyors . . . in pioneering improvements . . . Cutler-Hammer Engineers have always been in the forefront. In this field, as in all Industry, they have been called upon whenever new problems arose. By meeting, at some time or other, every *individual* problem in Motor Control, Cutler-Hammer Engineers have secured the best possible background for solving Motor Control problems *en masse* . . . for designing and constantly improving the Cutler-Hammer Line of *standardized* Motor Control.

C-H *standardized* Motor Control is the most far-reaching achievement of Cutler-Hammer Engineers. It applies the results

The Final Result of This Pioneering

Cutler-Hammer *standardized* Motor Control has features which only pioneer engineering could produce—features which only experience covering all problems of electric motor application could perfect. Thus, Cutler-Hammer “ready-to-use” equipment meets every common requirement with reserve to spare—provides for all usual motor applications the same superior performance, safety and economy for which Cutler-Hammer specially engineered Motor Control has been outstanding throughout three decades of Industry’s electrification.



CUTLER HAMMER

The Control Equipment Good Electric Motors Deserve

A-206

Kemp Brings Efficiency to All Process Heating



Two Men Went Into a Huddle Over Figures and Blue Prints . . .

A firm challenged depression

The press said that business was good. Two men, however, went into a huddle over facts, figures and blue prints, because in one industry at least, business was off. This in the eventful spring of 1930.

Long after the ting of a distant time clock had sounded, these two dug deeper and deeper into costs, markets and production. Dug until a simple truth made itself clear. That now, in the period of depression, was the time to improve equipment all through the plant. Especially was this the time to install the most efficient heating system available for their process heating operations.

After another study of blue prints, tests and data, the Kemp system was selected to save enough on labor, fuel, supervision and rejects to offset the slump to an appreciable extent. Six weeks later the Kemp system was in and operating—and has been proving every month since just how valuable their decision was.

The Kemp System

Correct in the fundamentals of combustion, the Kemp System brings gas to you on an economic basis, realizing to the fullest all of its many advantages. It is the most efficient and dependable means of applying gas to industrial operations in which uniformity of heating, temperature control, safety, reliability and economy in application are factors. You can't be sure that your present system is not costing you the price of a Kemp System every year without giving you any of its advantages if you haven't talked to a Kemp engineer. Take advantage of his service. It costs you nothing and neither does it obligate you. Send for him now.

Tear out this page and mail it with your letterhead for detailed information.

The Improved Kemp Automatic Gas System



BALTIMORE MARYLAND

When writing to C. M. KEMP MFG. Co. please mention Nation's Business

so many books on stock-market operation.

Are the people who lost in last year's crash trying to find out what happened to their money, or is the public preparing itself for another ride?

A MAN who had left a Nebraska farm and had worked as a skilled engraver in New York City was visiting his former sweetheart, a pioneer Nebraska woman. Their conversation is reported in "O Pioneers!" a novel by Willa Cather. The man is depressed because he has nothing to show for his years of travel and adventure, whereas the woman is the owner of many acres of valuable land.

"I'd rather have had your freedom than my land," says the woman.

"Freedom," says the man, "so often means that one isn't needed anywhere. Here you are an individual, you have a background of your own, you would be missed. But off there in the cities there are thousands of rolling stones like me.

"We are all alike; we have no ties, we know nobody, we own nothing. When one of us dies, they scarcely know where to bury him. Our landlady and the delicatessen man are our mourners, and we leave nothing behind us but a frock coat and a fiddle, or an easel, or a typewriter, or whatever tool we got our living by. All we have ever managed to do is pay our rent, the exorbitant rent that one has to pay for a few square feet of space near the heart of things.

"We have no house, no place, no people of our own. We live in the streets, in the parks, in the theaters. We sit in restaurants and concert halls and look about at the hundreds of our own kind and shudder."

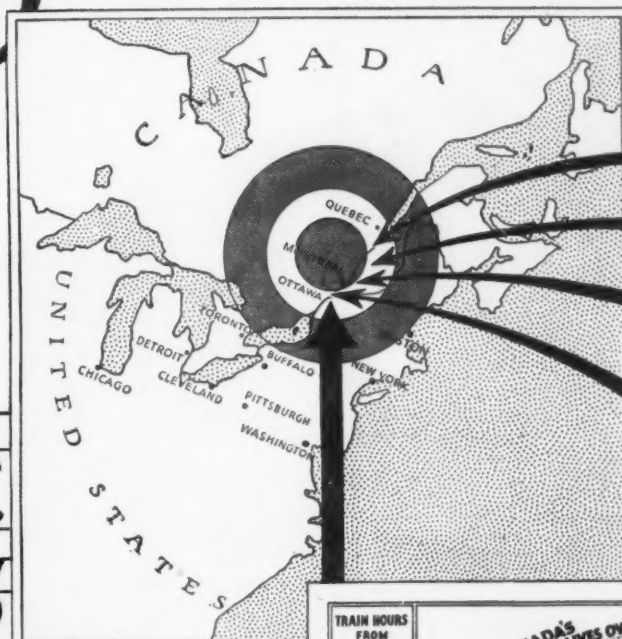
THE woman's retort is that the people in the country pay a high rent, too, even though they own the land. They grow hard and heavy. Life is bearable only because they think that life is better somewhere else. Which seems to prove that those in the city envy the country people, and those in the country envy the city people.

"O Pioneers!" is one of the \$1 books that many publishers are now offering. Written in 1913, "O Pioneers!" is one of Willa Cather's first novels, and among her best.

"O Pioneers!" by Willa Cather. Houghton Mifflin Co., Boston. \$1.

Investigate BEAUHARNOIS

before locating your CANADIAN PLANT



**2,000,000
HORSEPOWER
AWAITS INDUSTRY**

**WATER AND RAIL
FACILITIES**

**LOCAL MARKET of
5,000,000**

**BEST LABOR
IN ALL AMERICA**

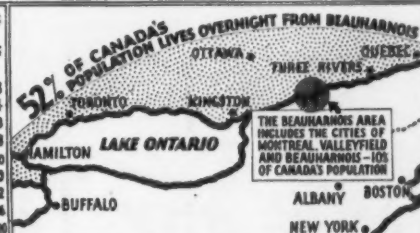
At Beauharnois, Canada, the largest power development in America is taking place. A canal and power house harnessing the St. Lawrence are being built to produce 500,000 horse power. The site permits an ultimate installation of 2,000,000 h.p. A surplus of cheap power now awaits you in the Beauharnois Area, the geographical centre of the richest market in all Canada.

Beauharnois is but 22 miles from the heart of Montreal, with a population of more than one million.

Obtain the data on the industrial possibilities of Canada and the Beauharnois Area as they affect your particular industry by writing to the Promotion Department of the Beauharnois Power Corporation, University Tower, Montreal, or have your secretary write today for a booklet on the Area.

TRAIN HOURS FROM BEAUHARNOIS TO

CHICAGO	18
DETROIT	14
ALBANY	8
CLEVELAND	18
NEW YORK	10
BOSTON	10
BUFFALO	12
WASHINGTON	12
PITTSBURGH	20

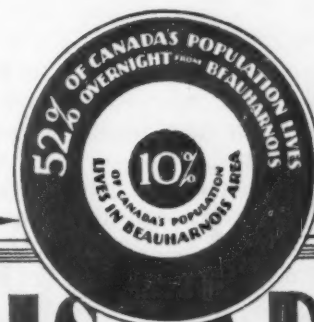


BEAUHARNOIS offers you

—the best labour in America with wages much lower than in the United States.

—direct deep water shipping facilities to overseas and domestic markets.

—the raw materials and the markets of the Empire at special inter-Empire tariff rates.



BEAUHARNOIS AREA

★ THE WORKINGS of the Trade Practice Conference have been clouded by generalities offered by friends or foes of the theory. Here are some actual facts taken from the records



Confusion exists as to the powers of the Federal Trade Commission

Does the Trade Conference Work?

By WILLIAM BOYD CRAIG

DECORATION BY G. LOHR

DOES a trade practice conference really work?

To find the answer to this problem, NATION'S BUSINESS asked a number of questions of those familiar with these meetings, which have been characterized as "agreements by wholesale." The views of those who sat in early conferences were sought. Trade association officials whose industries were affected were interviewed. Direct questions as to the value, results, and significance were propounded.

The inquiry was undertaken solely to obtain information which is apparently, but not actually, obvious.

More vague generalities have been passed about the working of these conferences than about any comparable industrial or governmental activity. Opinions are freely given by those who are for or against the idea as a theory.

For more than ten years the Commission has been calling together whole industries that agreement and understanding may be reached as to what practices are unfair and what are legitimate. There are two schools of thought on the effectiveness of these conferences. One group holds that they are a god-send to industry, beautiful in theory, and something more than a noble experiment in practice. On the other side are those who assert that, as far as they can see, the conferences aren't what they are cracked up to be. They do not really stop bad practices; they do no more than a trade agreement on ethics could do; and they are hypocritical in that they bring a group together to make solemn promises which it has no intention of carrying out.

This article is not a brief for or against trade practice conferences, but

rather an attempt to get at the truth of their workings. To do this fairly, it was necessary to go to those whose experiences cover more than a year or two. Of the hundred odd meetings, more than 50 per cent have been held in the last two years. Confusion exists as to the powers of the conference division of the Trade Commission. To many, the Federal Trade Commission itself is a sort of extra police force. As one trade association secretary expressed it, the members of his industry aren't sure just what breed of cat the Trade Commission is, but they are all sure that it is a cat which they do not want on their backs. Its powers and its purposes are still beyond the ken of many small manufacturers. Trade associations, in many cases, are doing a good job of interpreting the trade practice section to their members. Doubt as to the Commission's

JOHN R. SHERWOOD

Vice-President
Sherwood Bros., Inc.
Marketers of
Betholine and
Richfield Gasoline

asks —

"DO YOU KNOW HOW
MUCH DICTAPHONES WOULD
COST IN YOUR OFFICE?"



*The New Model A-10x
Equipped with
Automatic-Indicator*

"NO matter how low your guess, it will be way above the true answer," says Mr. Sherwood. "For, actually, Dictaphones cost NOTHING! Where economy is the major consideration, Dictaphones can be made to pay for themselves in from one to two years. From then on the savings are PROFITS.

"The Dictaphone's reduction of overhead, its increase of executive accomplishment, its economy-effecting features all tend to reduce the cost of documenting executive thought (which covers all kinds of dictation). Dictaphone economy," he concludes, "is a thing which begins everywhere and ends nowhere!"

There's a way of proving all this to yourself. Personal experience with the Dictaphone is the only way of observing its true economic virtues, its conveniences, and its ability to double your accomplishment. There's a coupon down in the corner.

DICTAPHONE

The word DICTAPHONE is the Registered Trade-Mark of Dictaphone Corporation, makers of Dictating Machines and Accessories to which said Trade-Mark is Applied.

Dictaphone Sales Corporation, 206N Graybar Bldg., New York, N. Y.

In Canada: 33 Melinda St., Toronto

I'd like to see how the Dictaphone can apply its economy and convenience to my office. Just show me one.

Name _____

Address _____

BRANCHES IN PRINCIPAL CITIES—SERVICE EVERYWHERE

THE HIGH SPEED MACHINE



FOR ALL FIGURE WORK



COMPTOMETER BUREAU—INDEPENDENT OIL AND GAS COMPANY

Keep an eye on the office

READJUSTMENTS . . . changing trends . . . new objectives . . . realignments . . . all follow fast upon the shifting tides of trade in these modern days.

This is the time when business needs figures—analytical figures—interpretive figures—timely statistical data.

It behooves management to see not only that the office is prepared to promptly supply such figures, but that it is equipped to produce them at minimum cost.

To this end . . .

The first step is:

Analysis of work to determine present cost; tracing of time-wasting movements and unnecessary operations.

The second:

To see that machines of high speed production capacity on all Adding and Calculating are put on the job.

Our Comptometer clerical research service is at your command, without charge or obligation, for advice or assistance in analysis and organization of figuring routines—and for suggestions in arranging machine tests on the basis of timed production.

Comptometer speed—speed with accuracy—together with the fast operating speed of trained operators supplied by our nation-wide—world-wide—chain of Comptometer schools, makes minimum figure-work costs an attainable reality.

If you are not interested in lower figure-work costs, most any machine will do. But everywhere and always, superfluous costs in business are a dangerous and intolerable drag on profits.

That is why it pays to keep an eye on the office.

FELT & TARRANT MFG. CO., 1712 N. Paulina St., CHICAGO, ILL.

CONTROLLED-KEY
Comptometer
RED TRADE MARK
 ADDING AND CALCULATING MACHINE

*If not made by Felt & Tarrant it's not a Comptometer
 Only the Comptometer has the Controlled-Key safeguard*

When writing to FELT & TARRANT MFG. CO. please mention Nation's Business

power centers chiefly around the question of enforcement of Group Two rules. Group One rules cover the obviously unfair practices which hold, more or less, for all businesses. They have the force of law and the Commission will enforce them. Group Two rules are those which the industry itself feels are necessary for fair conduct of business. Their enforcement is up to the industry itself.

To date no convincing precedent has been set. Private settlement, through arbitration, has taken care of almost all complaints which have arisen.

In difficult cases, the Trade Practice Division has aided in bringing settlement. After a conference, complaints of unfair practices generally become fewer, according to secretaries who have had experience with these matters over a considerable period. Until a good test case comes along, much more time likely will be lost in seeking settlement of difficult cases.

The following are case histories of the trade practice conferences of several industries. They were chosen because they represent varied interests, with wide geographical distribution, which have had a fair opportunity to try out the effectiveness of such procedure.

The first trade practice conference, in which members of the creamery industry took part, was held in Washington October 3, 1919. It was the outgrowth of a series of complaints which brought the whole industry to a realization that self-government was vitally important. The Commission took the initiative in calling the industry together.

Creamery conference successful

ON THE whole it may be said that the industry was generally conscious of a need for the conference and came to it with no mental reservations. Little systematic preparation had been undertaken by the various trade associations in the field but nevertheless it is the view of several familiar with the experience of this group that the members were prepared for such a step. At the meeting 13 practices were formally outlawed. They included tampering with or disregarding competitors' contracts, use of competitors' equipment, false testing, providing free cream cans to farmers and unfair price discrimination.

History shows that this conference brought decided betterments. Chief among these had been the elimination of unnecessary expenditures. One man familiar with the whole situation claims that the companies have saved hundreds of thousands of dollars by requiring farmers to provide their own cans. The

HANDLING
can use the ceiling

PRODUCTION
must use the floor

*They grew up
together*

But Now *Both* Need Room of Their Own

FREQUENTLY the need for separating handling and production in a plant is overlooked because of the fact that both "grew up together". But yesterday's "convenience" is often today's hindrance—the very compactness of your plant may be throttling every effort on your part to increase production and to lower costs.

The answer is not *more* factory but factory space *better used*. With Louden Monorail System, handling is given a space all its own—*up overhead* where the limitations of narrow aisles and roughened floors are unknown. Speeded production follows on the heels of faster, safer handling. Over the *permanently smooth* track of Louden Monorail, individual loads weighing as much as 5000 lbs. can be hoisted and moved with safety. Where distances are great, Louden electrical equipment operates over the same smooth Louden Super-Track which serves all departments.

Industry Uses More Miles of Louden

Louden . . . the first monorail . . . has held the lead. Louden users include:

Ceramic plants, automotive plants, foundries, textile mills, paper mills, bakeries, machine shops, department stores and manufacturers of practically every class of products.



"ECONOMICAL MATERIAL HANDLING" is a book of facts, full of helpful suggestions for the modern executive who is interested in making direct, practical savings within his own plant. Ask for your free copy at once.

Louden supplies hooks, racks and special carrying devices to prevent breakage and to handle everything from raw materials to finished parts. Hoisting and travel in standard equipment can be either manual or electric. But in either case Louden engineers make *your* handling system fit *your* handling problem. That is why all Louden users realize big returns on their investment—why many of them say "We write off its cost several times a year". Worth-while savings can, no doubt, be made in your own plant. Why not consult a Louden engineer? His advice is expert—and free.

THE LOUDEN MACHINERY CO.

Established 1867

606 West Avenue

Fairfield, Iowa

Offices in Principal Cities

LOUDEN

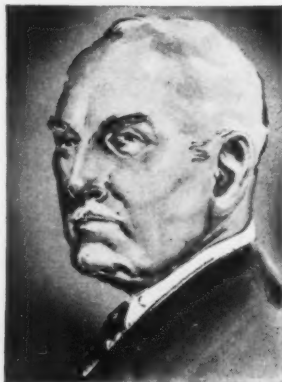
Industrial Monorail Systems

USE THE OTHER HALF OF YOUR FACTORY

(A-1707)

When writing to THE LOUDEN MACHINERY CO. please mention Nation's Business

WHY SHOULD THE PRESIDENT *be interested in handling costs?*

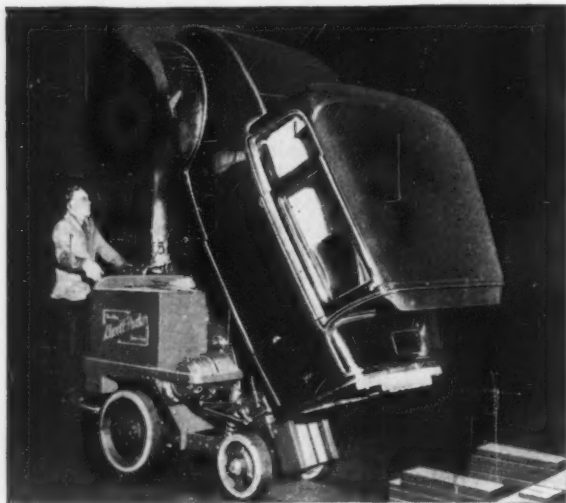


TO manufacturers confronted with decreased volume, the problem of profits is essentially a problem of *costs*. New production savings now are more necessary than for many years in order to maintain the same volume of profit. That is why presidents, vice presidents, general managers . . . the highest industrial executives are going deeper and deeper into costs. For the first time in many plants, the true expense of handling materials is being accurately calculated.

The figures, in nine cases out of ten indicate a need for greater economy in handling . . . a need for electric trucks as the basis for a more efficient system.

In one plant (pictured below), an exacting analysis of costs and the installation of Elwell-Parker electric Tructors led to a 50% reduction in the number of workers required to handle automobile bodies to and from storage and to a better utilization of storage space that saved the erection of a \$250,000 building. In another plant, one E-P Electric Truck made a saving of \$37.50 per day in labor cost. In another, one E-P Tructor now performs work that previously required 14 men.

An Elwell-Parker Engineer will be glad to give you a detailed outline of electric trucking economy—with actual figures and photographs. A conference with him involves no obligation. Just drop a line to Elwell-Parker in Cleveland.



Saved Erection of \$250,000 Building

Oversize motors, heavy in copper, take all the power the battery delivers. No fuses are necessary. Power failure at crucial moments is avoided. This, together with automatic control features protecting operator and truck, will interest your Safety Committee.

The Elwell-Parker Electric Co.

**SHIP on
SKIDS**



Designers and Builders of Electric Industrial Trucks, Tractors and Cranes for 24 years.

4251 St. Clair Avenue, Cleveland, Ohio

Tructors

When writing to THE ELWELL-PARKER ELECTRIC CO. please mention Nation's Business

industry was also benefited financially by stopping the giving of premiums and the lending of equipment.

Members of the industry report that a greater sense of unity was a direct result of the conference. At the same time it was pointed out that compliance was not 100 per cent as a few members occasionally reverted to former bad practices. Formal complaints were filed with the Federal Trade Commission in several instances and that body upheld them.

Better than a code of ethics

ONE member of the industry who attended the original conference says that, in his opinion, the conference had a greater effect than any code of ethics adopted by the members might have had. He says that competition in the industry is such that no agreement can be effective unless every member of the industry is a party to it and submits some sort of guarantee to observe it.

In speaking of the future, the secretary of a dairy products association says that at present he sees only one drawback to the industry's fair practice rules and adds that he believes it will prove troublesome. He refers to the special laws enacted by state and federal governments that permit cooperative institutions to do about anything they choose in competition with private interests.

This conference appears to be one of the conspicuous successes. It has had more than ten years in which to test its effectiveness. Its greatest value lies in the fact that it was able to save individual members unnecessary expenses.

Discussing the effects on the creamery industry, an official of a Chicago creamery said:

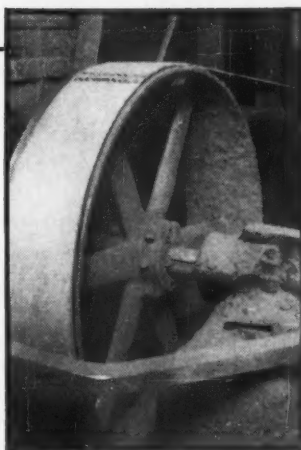
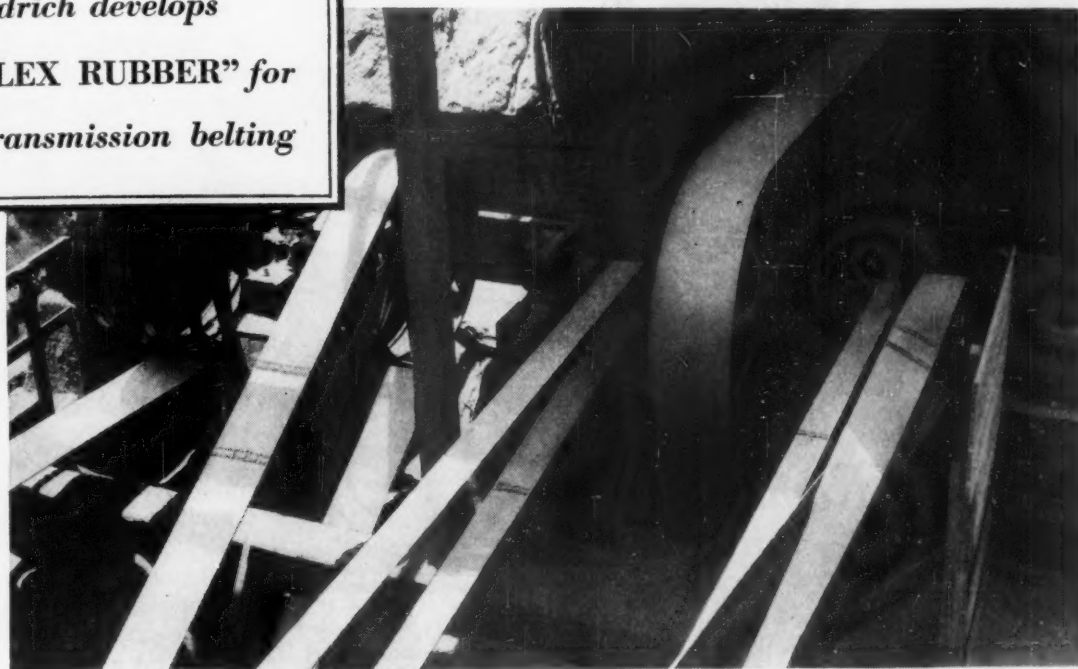
We have no central organization. Each member of the industry is a policeman. It is to the credit of those individuals making up the industry to say that alleged complaints are carefully investigated and weighed by the offended party before complaint is made to the Commission. We do not regard a complaint to the Commission as "tattling." It is the business of each member of the industry to fulfill his obligation to the whole industry by reporting unfair practices. We believe in handling complaints through a central organization. We do not believe our industry needs such, however, because individual units have worked under the rules for somewhat longer than ten years and the fair trade practices are so well understood and the violations so few that the central organization would prove surplus machinery and unnecessary.

New units are coming constantly into our industry. It is to be expected that in many cases the management of these units would not know the rules. However, somebody makes it his business to give the information, first a copy of the rules, and

A NEW RUBBER

now turns the wheels of Industry

Goodrich develops
"HIGHFLEX RUBBER" for
power-transmission belting



If you could visit manufacturing plants in every kind of industry, you would see thousands of belts turning the humming machinery... belts ranging from one inch up to two or three feet in width... belts-made of several plies of cotton fabric—held together by rubber.

If you studied the matter a little you would find that this rubber is subjected to a terrific strain. You can illustrate this by making a pencil mark across the edges of a magazine or pad of paper, then bending the pad as a belt would bend around a pulley. Watch the pencil mark and note how the sheets of paper slide over one another.

This same thing, on a larger scale, happens in a belt—the thin rubber layers surrounding each strand of cotton and holding the plies of the belt together must absorb the terrific flex-


ing, sliding strain which occurs with each turn around the whirling pulley. And sometimes these belts operate twenty-four hours a day—for weeks and months at a time.

In recent years one special rubber has been developed by Goodrich for power-transmission belting. It has elasticity, an amazing power of recovery and ability to stand constant flexing. It is called Highflex rubber.

Since its development, Goodrich Highflex belting has set entirely new standards of performance and lowered production costs in dozens of industries.

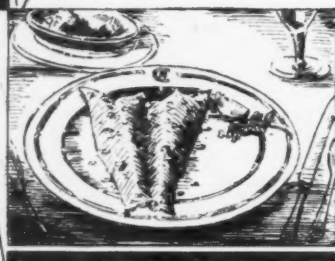
Interested executives are always invited to address the Chairman, Goodrich Industrial Research Committee, regarding their problems to which rubber may provide an answer. Goodrich, Established 1870, Akron, Ohio.

HIGHFLEX BELTING

Another **B.F. Goodrich** 
Product

32,000 rubber articles, representing more than a thousand distinct rubber products—Goodrich Silvertowns • Zippers • Rubber Footwear • Drug Sundries • Soles • Heels • Hose • Belting • Packing • Molded Goods.

When writing to GOODRICH INDUSTRIAL RESEARCH COMMITTEE please mention Nation's Business



There's Adventure on our Menu and Romance in our Kitchen....

SINCE we all eat anyway, let's get some fun out of it. Come to the Cleveland on your next trip to Cleveland, and let's go adventuring. Forget the usual dishes you order from deadly habit, and say to the waiter—

"Brook trout amandine." (We don't care how you pronounce it—it's fresh Colorado brook trout with almonds.) Then sit back and wait for the thrill.

Here it is. A beauty that would bring joy to the heart of any fisherman. Broiled to a turn, every bone removed, sizzling with golden creamery butter—and literally covered with crisp, baked almonds!

If ever there was food for the gods, this is it.

Along about noon some day if you catch a whiff of mountain pines and tang-y mountain air, follow the trail to Hotel Cleveland—Main Dining Room or Bronze Room—and treat yourself to an adventure in eating.

Hotel Cleveland
Public Square + Cleveland
1000 rooms, 150 of them at \$3

The new Union Passenger Station is directly connected to Hotel Cleveland by enclosed passageway. A Red Cap will take your baggage the few easy steps to the Hotel desk.



When writing to HOTEL CLEVELAND please mention Nation's Business

second, copies of the several cease and desist orders issued by the Commission and which are in themselves quite informative. The education so given usually results in a desire to pursue fair trade practices and such desire leads to a high degree of conformity to the rules.

The trade practice conference is a matter of education and its beneficial influence on an industry cannot be described. If we get into our minds the idea that, as business men, we should be as fair to the other fellow as we expect him to be to us we have accomplished the purpose of the trade conference. In other words, a practical application of the golden rule to business could be substituted for a trade practice conference.

The publishers of standard sheet music assembled at the New York office of the Federal Trade Commission in January, 1924. This conference was called to stamp out a single bad practice.

Universal cut prices

FOR many years the publishers had advertised sheet music at prices approximately one-third higher than the actual retail selling price. This practice grew out of the custom of giving teachers a discount. Gradually music students obtained the same privileges and finally a large part of the public, familiar with the practice, also demanded the discount. This meant that the price marked on sheet music had practically no connection with the actual selling price. A false impression of universal cut prices was gradually created.

Although almost the entire membership of the industry unanimously agreed to print the price at which the music was expected to sell at retail, the agreement was not carried out. At least one important member reverted to former practices in less than a year. This immediately broke up the effectiveness of the agreement. Today the agreement has lost practically all force. No effective attempts to compel the offending members to abide by the decision of the conference were made.

Bitter competition broke it

THE breakdown of this agreement is attributed by those in the industry to long and bitter competition which made effective cooperation practically impossible. The members apparently preferred to use price as a weapon against one another rather than call on the Federal Trade Commission. No attempts at further agreements have been made.

The butter, egg, cheese and poultry industries of the Pacific Coast met with representatives of the Federal Trade Commission in San Francisco in July, 1927. Two hundred twenty-two firms

handling approximately 90 per cent of the volume of these products voted on resolutions.

This was one of the first conferences in which the rules agreed on were divided into Groups One and Two.

In this case, the Group Two rules include such practices as failure to deduct transportation costs from prices charged for commodities shipped to creameries, buying and selling dairy and poultry products according to grade and the regulation of commodity exchanges. Eleven rules were placed in Group One and seven in Group Two. The industry was practically unanimous in its approval.

According to an interested observer, the industry has not profited greatly. He says that the mere discussion of fair trade practices has had some beneficial effect.

This man reports that conditions have been slowly improving along ethical lines in this industry during the last decade or more.

The industry is now trying to set up a program of self-regulation as an outgrowth of the conference. Efforts to obtain a further conference with the Commission to clarify and enlarge the rules have failed. Some resentment is in evidence because of the Commission's apparent willingness to conduct new conferences although it has little time to cooperate in enforcing the regulations already adopted.

Well prepared for conference

AT THE conference of members of the shirting fabrics industry held in the Commission's New York office in January, 1928, about 95 per cent by volume of the industry was represented. Among the practices considered were misbranding, design piracy, abuse of samples and freight discriminations.

The Shirting-Fabrics Association, which comprises relatively few members most of whose factories are near New York City, had made thorough preparations for the conference. The members of the Association were acquainted with the nature, aims and reasons of the conference.

Proposals for resolutions were sent to all members for comment and correction. Thus the industry met around the conference table with its objectives clearly in mind.

The meeting itself took comparatively little time because individual opinions and differences had been thoroughly threshed out beforehand. Only two rules were set up under Group One. Only two were included in the Group Two classifi-

COSTS REDUCED

READ what one big Ironing Machine manufacturer says about pressed steel.

"Well satisfied . . . lightness, a decided advantage . . . has everything desired in strength and durability . . . greatly facilitates our assembly work . . . enabled us to reduce production costs . . . gives us a superior type of machine."

Many manufacturers . . . in different industries . . . have found equally startling advantages in the use of Pressed Steel. Eighteen examples will be found in the book, "Adventures in Redesign," showing how . . . weight has been reduced . . .

breakage eliminated . . . strength increased . . . assembling simplified . . . eye value added . . . and new markets opened up with Pressed Steel.

You can easily take advantage of YPS Cost Cutting Service . . . without cost, without obligation. Send for this "Book of FACTS" today. Pin the coupon below to your business letter-head.



"PRESS IT FROM
STEEL INSTEAD"

THE YOUNGSTOWN PRESSED STEEL CO.

The Youngstown Pressed Steel Company,
305 University Road, Warren, Ohio

Please send me a copy of your FREE Book, "Adventures in Redesign."

Name _____ Title _____

When writing to THE YOUNGSTOWN PRESSED STEEL CO. please mention Nation's Business

Empress of Japan

SPEEDS UP THE PACIFIC "MIRACLE"

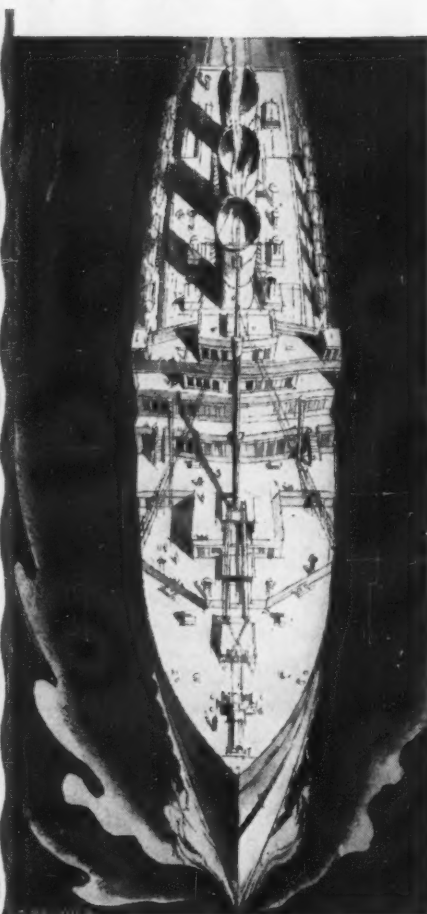
● The huge new Empress of Japan now enters the Pacific "miracle." Largest, fastest ship on the Pacific...26,000 gross tons, 39,000 tons displacement, 21 knots speed...she now heads the great white Empress fleet which is turning the old Far East into the new Near West.

The great white Empresses make Hawaii a casual trip. Their passengers have put foot on Japan 8½ days after leaving North America. Shanghai, Hong Kong, Manila...all are now "nearer" by 1000 miles, by 2 days less voyaging, via these largest, fastest ships on the Pacific.

The Empress of Japan presents sea-going luxuries carried to a new 1930 high...verandah suites-with-bath, green and black tiled swimming pool, period lounges, sports deck, elevators, inlaid teakwood floors...a luxurious resort-on-keel with service and cuisine in the New York-Paris manner...equally superior first and second class. She is hailed with delight by the smart internationals who prefer the Empress way of going to the Orient. There are two white Empress routes to the Orient...the paradise route, via Hawaii, and the express



In the Orient, washdays have seen no change in centuries



This new white giantess brings the Far East still nearer...

route, straight across to Yokohama from Vancouver and Victoria.

Ask for folder showing complete Empress sailings, ships' plans, and illustrated color booklets on the fascination of the Orient experience. Information, reservations and freight inquiries from your own agent or any Canadian Pacific office: New York, Boston, Philadelphia, Washington, Chicago, Montreal, and 29 other cities in the United States and Canada.

TO THE

Canadian ORIENT Pacific

WORLD'S GREATEST TRAVEL SYSTEM

When writing a CANADIAN PACIFIC office please mention Nation's Business

cation. These included a rule on style usurpation and the practice of giving away free samples.

This conference has apparently had admirable effects on the members of this industry. The practices referred to have virtually ceased. Much of this is due to the fact that arbitration as now carried on has been highly successful. Furthermore, the members of the industry are so close to each other that this method of ironing out defects and alleged mispractices has been most effective.

No real comparison of work

ANY general conclusion as to the efficacy of trade practice conferences must be made with great care, because of necessity they are subject to qualification. Obviously it is impossible to say that a particular group has been 60 or 90 or 30 per cent successful in its experiences. Similarly, it is unfair to compare the results achieved by any two industries.

A few conclusions seem sufficiently evident, however, to be set down here for what they may be worth.

The success of a conference depends, paradoxically, not on the conference so much as on the trade associations within the industry. Preparation in the way of education before a conference, carried on by the trade groups, is more important than any rules adopted by the industry or laid down by the Commission at a meeting. No member of an industry is any more honest after a Trade Practice Conference than he was before.

Good times help the conference

THE moral effect of the whole procedure is much more likely to be an asset in flush times when there is plenty of business for all than it is in periods of fierce competition. The silent threat of the Commission's power is an effective check on those of little moral stamina when business is bad.

Even at such times, however, efficient trade body executives may be able to smooth out ticklish snarls and tangles without brandishing the Federal Trade club.

Correctly construed, the cooperation of the Commission may aid an industry which is genuinely eager to maintain its standards through thick and thin.

Geographical location or the number of members in an industry seems to make little difference in the success or failure in an industry's attempts at self-regulation.

IDENTIFIED * CUT-TO-SIZE CRATES FOR STANDARDIZED PRODUCTS

Weyerhaeuser Cut-to-Size Crates, designed specifically for your standardized products, make possible substantial reductions in your shipping costs.

Because they are scientifically designed and Laboratory-tested, Weyerhaeuser Crates exactly meet the shipping requirements of the individual product. There is no haphazard assembly, no variance in kinds, sizes and weights of lumber. In hundreds of instances the Laboratory method of analysis and design as developed by Weyerhaeuser has revealed wastes in labor and materials and eliminated them by the use of proper woods, correct design and orderly assembly.

The Weyerhaeuser Method shows you the minimum amount of lumber required — the right kind, the exact size, the correct weight, and the specific number of pieces. This frequently means lower lumber and freight costs.

The Weyerhaeuser Method creates orderly arrangement and specific method of packing, resulting in speedy assembly and minimum labor cost.

The completed crate is strong, rigid and safe—assuring a minimum of troublesome and costly damage claims. And because it is *right*, it is stamped with the approval of our crating engineers — The Weyerhaeuser Seal!

Even though the design of your present crate may be perfectly satisfactory, we frequently can show you savings through the use of proper woods and because of our specialized manufacturing facilities and our long experience in solving industrial problems of this nature.

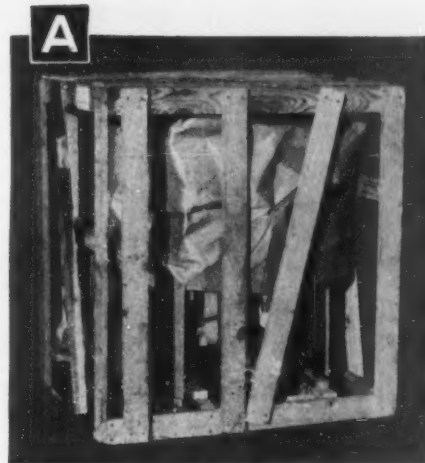
★

An estimate on your present requirements for cut-to-size crates, or a cost-saving Laboratory Analysis of your shipping methods can readily be arranged through our nearest district representative.

For the manufacturer who is unable to take advantage of the economies of cut-to-size crates, Weyerhaeuser offers a variety of ideal Light Weight Crating Woods in standard grades and sizes. These woods are light weight, non-splitting and of ample strength to assure adequate protection, making possible unusual savings in both labor and freight costs.

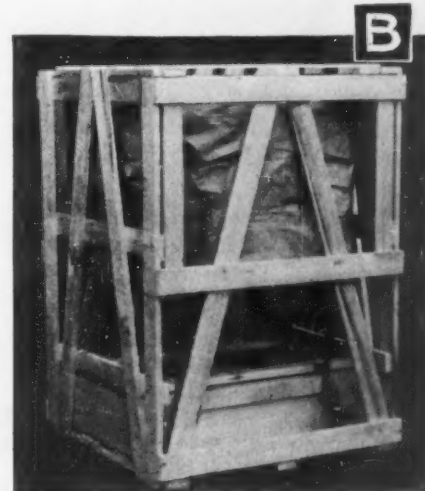


The Weyerhaeuser Seal is a symbol of demonstrated worth. It identifies only the crate that has undergone scientific study and Laboratory analysis . . . the crate that has been proven to be soundly designed and properly assembled. It is the mark of approval of the Weyerhaeuser Crating Engineer.



Crate History No. 232

The crate in which this machine was originally shipped to our Laboratory at Cloquet was heavy, complicated to build and contained too much lumber for the amount of protection given the machine. It lacked rigidity. The top and bottom were made in sections, while the sides and ends were nailed in place during the crating operation.



The Weyerhaeuser Laboratory Designed Cut-to-Size Crate was made of lighter weight woods and consisted of top and bottom sections and two identical side and two identical end sections. Two uprights in the bottom section formed the mounting for the machine, properly distributing the weight and eliminating the bracing and blocking used in the old crate. Savings effected were 23% in lumber, 28% in weight and reduced labor because of easier assembly! And obviously a neater crate!

Crating Sales Division
DEPARTMENT 51

WEYERHAEUSER SALES COMPANY
307 NORTH MICHIGAN AVENUE CHICAGO, ILLINOIS



The Southern Pacific Railroad's main hospital at San Francisco

An Industry's Human Repair Shop

By FRANK J. TAYLOR

"A MAN is like an engine," said Dr. Walter B. Coffey. "Sometimes he needs fixing.

What we try to do is send him to a hospital for repairs, just as we would send an engine to the shop for new parts."

That sounds simple, but when you undertake to keep 60,000 men and women in repair, which is Dr. Coffey's job as chief surgeon of the Southern Pacific Railroad, it amounts to the same thing as keeping a good-sized city in perfect health.

"We started out to sell medical services to all the company's employees," Dr. Coffey continued. "We wanted officers and men alike to consent to a yearly check-up. We wanted to head off their ailments before they were incapacitated. Because everybody loses when a good workman is sick, we consider it good business to keep our workers well."

So at the Southern Pacific's great general hospital in San Francisco the humblest bal-



Dr. Walter B. Coffey (right), head of the hospital system, and Dr. Humber, an assistant



THE Southern Pacific Railroad and its men have invested millions in a medical service. Is such an investment sound?

"We regard the good health of our employees," answers President Paul Shoup, "as a vital element in the company's operation"

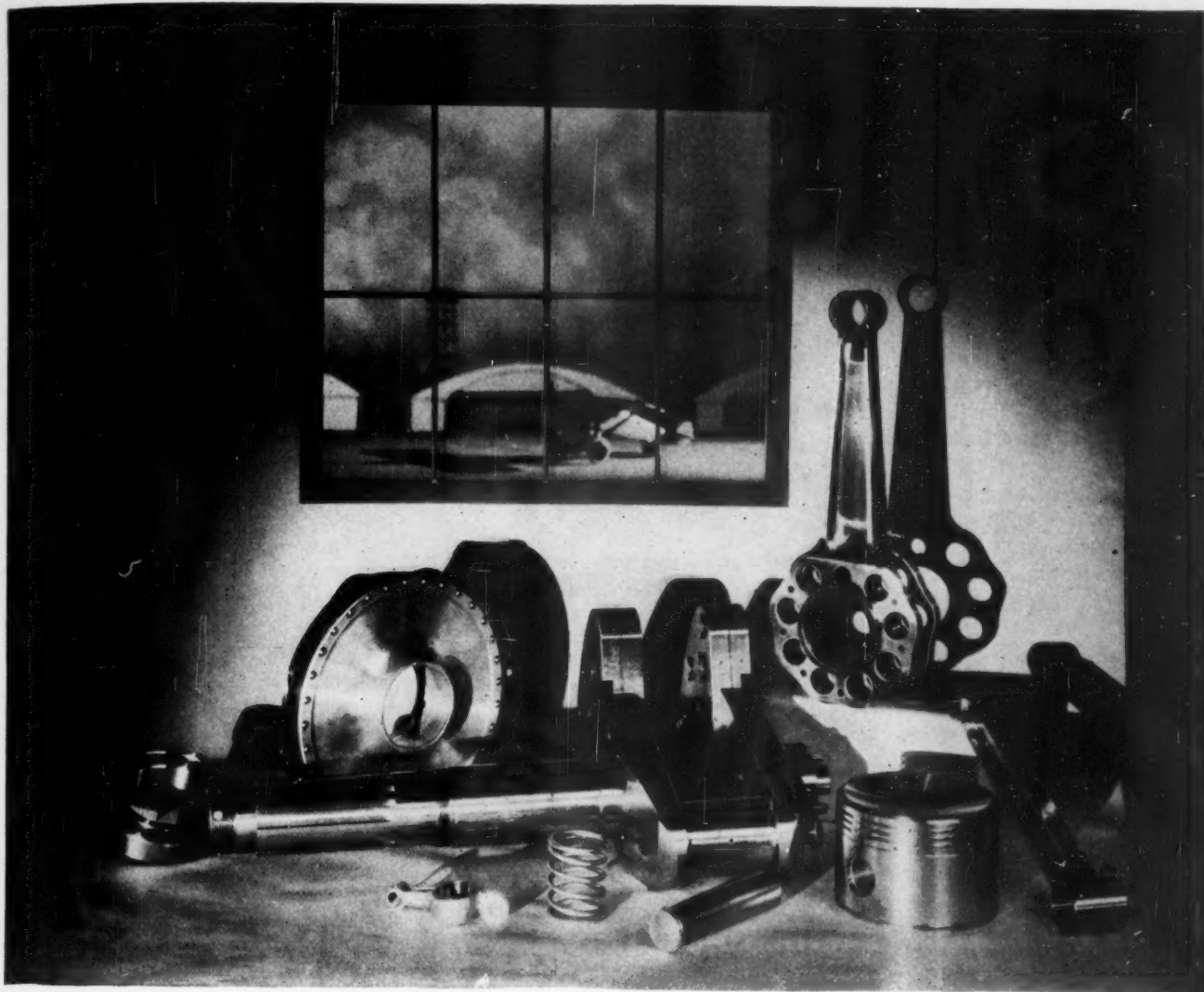
last tamper on the line is entitled to the same treatment and the same service that awaits President Paul Shoup or any other executive who may be "ordered to the shop" by any of the company's 500 doctors.

20 emergency stations

IN addition to the San Francisco hospital there are 20 smaller "shops" out along the line to give emergency treatments or to care for minor "repairs."

A medical and health service of this kind costs money. The Southern Pacific and its employees have contributed many millions of dollars for this health service. At first blush it is hard to see just why that much money should have been used in medical services, even over a long period.

Since the officers of the Southern Pacific have a reputation for being hard-headed business men, it seems all the more pertinent to find out why this big company started



Ground for the air. The major parts of the airplane motor...the closely fitting parts of all fast working engines...are ground to mechanical perfection. Speed translated into mechanics means accuracy. Accuracy in modern production means grinding.

Norton Company, Worcester, Massachusetts

GRINDING WHEELS,

GRINDING and LAPPING MACHINES,

ABRASIVES FOR POLISHING,

NORTON

PULPSTONES, REFRACTORIES, POROUS PLATES, FLOOR and STAIR TILES, ABRASIVE AGGREGATE.

this system to maintain its employees' health, and to learn just how the system works, and with what results.

To go back into history, in the 'sixties, when California's "Big Four," Stanford, Huntington, Crocker, and Hopkins, four Sacramento merchants, decided to build a railroad across the Sierra Nevada, "Uncle Mark" Hopkins was put in the back room at headquarters by the other three to watch the new company's treasury.

Stanford and Huntington were everywhere from San Francisco to Boston, whooping up sentiment and support for the Central Pacific, and raising money to build it. Crocker, in his own words, "raced up and down the right of way, like a mad bull," driving men to do the impossible in construction.

"Uncle Mark" stayed in Sacramento, hanging onto the dollars for dear life, realizing that it was nip and tuck whether men and money or the Sierra Nevada would win the struggle.

The new railroad had to train raw man power to operate its trains. Good men were scarce, and "Uncle Mark" noticed how many of them were injured, or became ill from exposure, and what a large percentage failed to recover properly because of lack of funds or inadequate medical treatment. Railroad was then in its infancy, and things were always happening. Good men were being lost constantly.

So in 1867, "Uncle Mark," the most conservative of the Southern Pacific's founders, rented a big house in Sacramento, hired a doctor and nurse, and started the first company hospital in the world to care for sick and injured railroad men.

It was a modest beginning indeed, but it was made at a time when the company could ill afford to waste a single dollar. It was merely "good business," in the eyes of the Southern Pacific's management, and that is the only justification for the present elaborate system of keeping employees in "good repair."

An ever growing hospital

IN 1869, the old hospital gave way to a new \$64,000 building, with 125 beds, in Sacramento. At that time, a plan was evolved whereby each employee paid 50 cents a month for hospital dues and medical insurance.

The road had only a few hundred employees then and the 50 cents served mainly to help the employees feel that the hospital was their institution, that the doctors and nurses were working for them. In short, it encouraged workers to use the "repair shop."

The railroad defrayed the main cost of the service from its treasury. However, as the lines of the Southern Pacific extended the pay roll grew, and this fee from the employees became in total a real sum of money.

Today more than 60,000 employees are working on the Pacific Coast lines of the railroad, and the monthly fee has been increased to one dollar, with the employees' hearty concurrence. That means an income of three-quarters of a million dollars yearly from dues, but demands for medical service have increased in even greater ratio.

One of the leading hospitals

TODAY the plant includes a general institution in San Francisco, which has been characterized by experts as "the best equipped hospital in the United States, with the possible exception of one." The hospital is built by Golden Gate Park, where all employees may enjoy sunshine and flowers and the out-of-doors while they are convalescing.

The San Francisco hospital accommodates 300 beds. A new wing, under construction, the gift of E. S. Harkness, a director of the road, will add 100 more. Its facilities include the most modern operating rooms and modern machines for therapeutic treatments. It includes a complete dental clinic.

On the hospital staff are 15 full-time physicians, about 40 part-time specialists and surgeons and 120 graduate nurses.

That is merely the main "repair shop." There are six complete contract hospitals between Portland and New Orleans, an employees' hospital at Houston, and 14 emergency hospitals. A staff of 456 physicians is on call all the time along the line outside San Francisco. Two completely equipped hospital cars are on the road all the time. Pulled into remote towns and sidetracked, these cars are open to any employee who is concerned about his physical condition.

Take the case of William Brown, of Yuma, Ariz. Bill is a freight agent there. When the hospital car pulls in, Bill is the first to show up.

"Doc, my shoulder hurts," he says, "it feels like rheumatism."

"This is a funny place to have rheumatism, out here on the desert," the doctor replies. "Sure you didn't fall and bump your shoulder?"

"No, nothing like that," asserts Bill.

So they examine Bill from his toes to his bald spot. Nothing wrong!

"Let's have a shot at your teeth," says the doctor.

The X-ray tells the tale. Bill has a couple of ulcerated teeth, which are

pouring poison into his system. Now they know how to "repair" Bill, either in the car or at the nearest dental clinic.

The next patient is a swarthy track worker. He "just don' feel ver' well." The foreman has sent Juan Gomez over to the "repair car" because he can't keep up with the other ballast tamperers. The doctors give their verdict.

"Juan, you're a sick man. We're going to send you to the hospital in San Francisco to get all well."

Juan Gomez travels to San Francisco in style. At the big hospital he goes to one of the "hombres'" wards, hears from his countrymen of the wonderful things the doctors and nurses will do for him, of the fine food.

When he arrives back in Yuma he tells his fellow workers of the great adventure which restored him to health. They conclude that they are working for "one ver' fine boss."

While he was in the hospital Juan Gomez was given a complete physical examination. If he exhibited indications of any disease, the doctors began treatments at once. These treatments are continued later when the hospital car is in the vicinity. A complete chart of Juan's health problem is in the file.

This may be comparatively unimportant, from the point of view of public safety, for the section hand, but with engineers, dispatchers, conductors, and responsible office workers, it is a vital matter. Lives may depend on it, and the Southern Pacific is willing to spend almost any sum to maintain its record, "ten years without a fatality to a passenger."

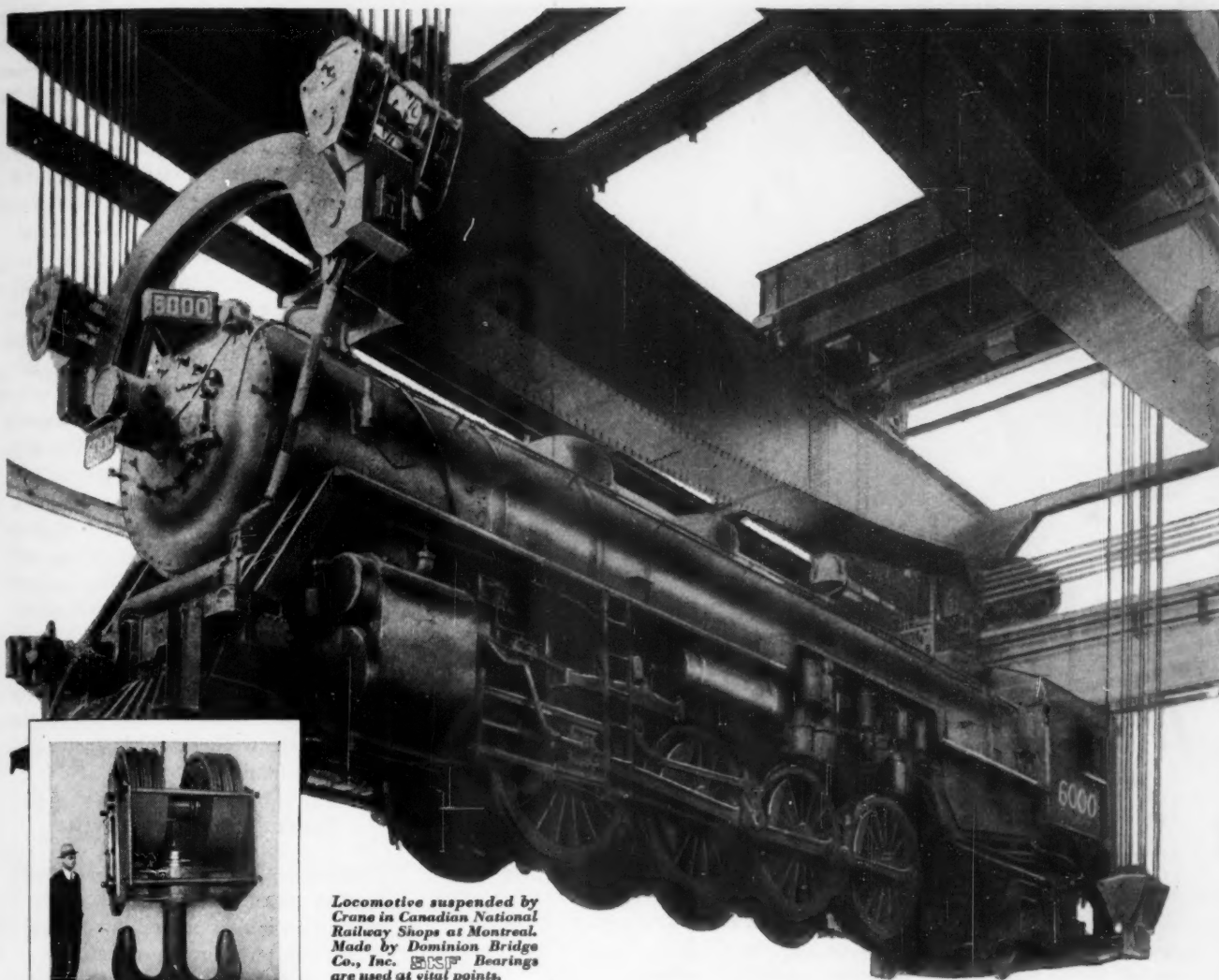
How the system functions

TODAY, if a clerk or a freight handler for the Southern Pacific anywhere, wakes in the morning with a severe cold or a pain in the head, all he has to do is reach for a telephone and call his office.

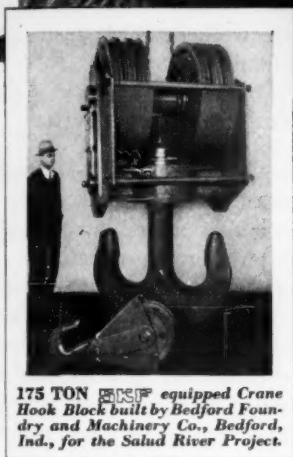
Within an hour or two, a doctor calls at the employee's home, diagnoses his ills, prescribes treatment, and orders medicine. Even the bill for the medicine is sent to the railroad cashier who handles all accounts of the hospital.

If the patient can be treated in his home, the doctor continues to call daily until he is well. If the case calls for surgery, or hospital treatment, the patient is given his "orders to the shop." Of course, a good many cases may be treated by daily visits to the clinic.

In recent years, every applicant for employment has been given a physical examination before being hired. Tendencies or weaknesses do not keep him off the pay roll, necessarily. But the ex-



Locomotive suspended by Crane in Canadian National Railway Shops at Montreal. Made by Dominion Bridge Co., Inc. SKF Bearings are used at vital points.



175 TON SKF equipped Crane Hook Block built by Bedford Foundry and Machinery Co., Bedford, Ind., for the Salud River Project.

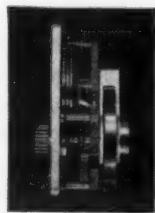
IS IT A TOUGH JOB? ... then it's an SKF job!

CHECK up on that statement yourself. Look for evidence of it in the journals of fast railway passenger coaches. Test it out again by inquiring into the kind of bearings that go into great milling machines, great crushing machines, mammoth river dredges.

And yet—strength . . . the ability to stand up and perform under gruelling punishment is only one of the features of SKF Anti-Friction Bearings. Precision—precision that is drawn as finely as one-half of one-ten-thousandth of an inch—is another factor that makes SKF the preferred bearing throughout the world.

No matter what your bearing problem may be, put it up to SKF.

SKF INDUSTRIES, INC., 40 East 34th St., New York, N.Y.



SKF Bearings are also used on delicate scientific instruments where the demand is for extreme precision instead of extreme strength.

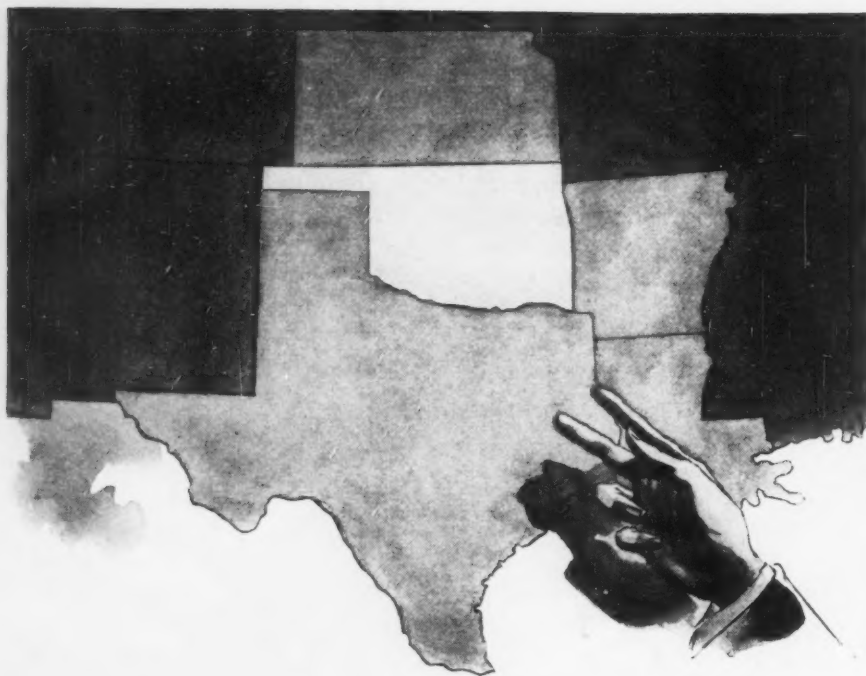


Hook of 480 TON Portal Crane made for the French Government and equipped throughout with SKF Bearings.

SKF

"THE HIGHEST PRICED BEARING IN THE WORLD"

When writing to SKF INDUSTRIES, INC. please mention Nation's Business



The Focal Point of Gas Production

WITH Oklahoma producing 20% of the nation's natural gas, centrally located in 5 states producing 58% of this fuel, and offering in rich abundance all other facilities required by industry—manufacturers using or desiring to use natural gas will find this state the ideal location for their factories.

Plentiful and low-priced fuel is only one of Oklahoma's advantages. This state ranks second in mineral production, is outstanding in agriculture, has fine water and a mild, sunny year-round climate which insures minimum housing, heating, lighting, ventilating and clothing costs. Excellent transportation facilities are offered and the state is centrally located for serving either the Southwest or the nation. So convincing are Oklahoma's advantages that an internationally famous economist has recently characterized this state as equalled in industrial potentialities by only two other states in the nation.

Industries served by the Oklahoma Natural Gas Corporation now enjoy the lowest industrial gas rate offered by any major gas producing and distributing organization. This corporation serves practically every large city in Oklahoma and many in nearby states. Our industrial department is prepared to make special surveys without obligation, and will treat your inquiry as strictly confidential.

OKLAHOMA

NATURAL GAS  CORPORATION

Tulsa.....Oklahoma City

Serving 56 Oklahoma Cities—One of the World's Largest Distributors of Natural Gas.

When writing to OKLAHOMA NATURAL GAS CORPORATION please mention Nation's Business

amination does give the doctors a line on him. It gives him contact with the health service, helps him learn to use it. Engineers, firemen and dispatchers are examined periodically, as are all handlers of food in the dining-car department. The rest of the 60,000 come in for examinations whenever the doctors can lay hold of them, through colds, headaches, or what will you.

So far, the company hospital has not assumed the obligation of caring for the worker's family, largely because of the size of the task. It involves medical service for at least 300,000 persons.

Nevertheless, the company's doctors recognize that the health of the employee's family affects his personal efficiency. In thousands of cases, company doctors have gone beyond their jobs and advised treatment for wives and children of employees. It is Dr. Coffey's hope that a plan may be evolved whereby the company's health service may be extended to families.

"It is just good business," Dr. Coffey said. "It means much more work for the staff, but the worker can't be at his best unless his family is well."

Several epidemics averted

THERE is one other aspect of this industry's great health service that is worth mentioning, something entirely a by-product of the main operation.

Not long ago several patients appeared at the general hospital in San Francisco with a strange disease that doctors who sent them in did not recognize. All the men came from a certain place in Nevada. The headquarters staff tackled the problem. One doctor had an idea.

"Did you hunt rabbits out there?" he asked the patients. All of them had.

"Tularemia," he said.

Tularemia is a mysterious disease communicated by the flesh of infected wild rabbits. The patients were treated and got well. Rabbit hunting along the line in Nevada was stopped and a tularemia epidemic was averted.

Another time the Southern Pacific staff detected what might have been an epidemic of sleeping sickness.

The hospital staff has uncovered and headed off seven separate epidemics of infantile paralysis.

Since the company's doctors began analyzing water supplies, typhoid fever has vanished from along the line.

The most recent and startling disclosure of wide public interest has to do with the experiments of Doctors Coffey and Humber with a new treatment of cancer.

In addition to the hospital and health

service, the Southern Pacific has set up a life-insurance plan whereby the railroad and the employee go "50-50" on life insurance. The company makes the first move by providing every worker with a \$500 policy without cost to him. Thereafter, if he wishes additional policies, he may take them out to the extent of his ability to pay one-half of the premium charge. The company pays the other half.

The system this railroad has evolved to keep its workers in good repair may be adapted, with variations, to any industry. In fact, it would be a more simple operation for an industry where employees are grouped in a few centers.

President Paul Shoup regards this as one of his company's soundest investments. He was asked once whether he regarded the health service as altruism or business.

"Both," he said. "Every big business can engage in a certain amount of altruism and find it good business. What our neighbors along the line think of us has much to do with our ability to sell our service.

Employees are all-important

"IN THE final analysis, our service must be sold by our employees. If they are well and happy, they make better representatives of the company, they get more business, they operate the system more efficiently, and the company prospers that much more.

"It is hard to tell where altruism ends and business begins in a case of this kind. The hospital and the health service are good business for the employee. He pays his dollar per month and he receives the best medical service the world can provide.

"The community health plan is sound. Its use might well be extended.

"Our community hospital has made possible a great deal of preventive work, which is fully as important as the rehabilitation of the sick and injured.

"As a result our employees work more efficiently and that is worth a great deal. Those who have been treated feel more kindly toward their employer and the world at large. Good-will is one of the greatest and most elusive assets in our business—or in any other.

"As for the directors and officers of the company, their attitude toward this service is indicated by the increasing scope of the work. On behalf of our management, I can say that we regard the good health of the company's employees as a vital element in the company's operations and well worthy of its enthusiastic support."

"I Had Those Figures somewhere in my desk



"... Just three sheets of cost figures clipped together... Funny they should get mislaid... I use 'em nearly every day... Could almost read 'em from memory... Should be in with this batch of income statements... No; those are the sales summaries... And *those* are the monthly production schedules... Don't want to lose those, either... Now let's see..."

Do you ever get held up in the middle of an important transaction because some essential piece of every-day working data has got itself obstinately mislaid—accidentally stuck to another sheaf of papers or shoved under a blotter?

Get the Loose Leaf ring book habit. A set of neat, solid leather ring books will keep your working data all compactly arranged just where you want it—monthly reports of finances, sales, production—essential data on your own organization, your customers', your trade—all conve-

niently classified in tabbed divisions, ready for instant reference.

National Metal Hinge Ring Books make ideal working tools for the busy executive. Made with solid leather covers, steel-hinged for durability and flexibility where ordinary ring books give out first. Moulded fibre back, colored and grained to match the leather, prevents scuffing. Ball-bearings make oval-section, polished steel rings open wide at the touch of a thumb lever. Obtainable from your stationer, with celluloid tab indexes and with fillers in a variety of rulings.

Get the Ring Book Habit



National Steel Hinge Ring Books Speed Up Executive Work



National Blank Book Company

LOOSE LEAF BOOKS • VISIBLE RECORDS
MACHINE BOOKKEEPING EQUIPMENT

NATIONAL BLANK BOOK CO., Dept. 5-X, Holyoke, Mass.

Please send me, without obligation, your booklet, "The Modern Business Office"—a step-by-step trip through a typical business office showing how not only ring books but many other devices can be applied to save a firm's time and money.

Name.....

Firm.....

Address.....

Perhaps you would also be interested in one of the booklets below. Check which.

☐ Organized Facts
(4 parts)

☐ 266 Places for
Visible Equipment

When writing to NATIONAL BLANK BOOK Co. please mention Nation's Business



Four evening classes a week meet in the studio of the Business Men's Art Club of Chicago

There's Real Recreation in Art

By BENJAMIN FRANKLIN OLSON

President, Business Men's Art Club of Chicago

PALETTE and brush, pencil and etching tools are opening up new worlds for business men in many cities who are followers of the new amateur movement described here

IN AN ancient Antwerp square is a bronze memorial to a blacksmith who became a great painter that he might win the daughter of a painter who objected to the blacksmith's prosaic calling. So infrequently has this happened in history that it has what the journalist calls "news value," but the incident was the forerunner of a movement among many business men to embrace art as an avocation.

The transplanting of Quinten Matsey from his exertions at the forge to the sacred realms of the great masters was actuated by love for a woman, but no such motive can be attributed to the conception and growth of the Business Men's Art Clubs, the first of which was organized in Chicago. Business leaders of Milwaukee, Denver, Philadelphia, Boston, Cleveland, St. Louis and New



The author, architect by vocation, artist by avocation

York, followed suit and some additional groups now are being organized in California. All of these clubs are a part of the national order, the Associated Amateur Art Clubs.

At the suggestion of Mr. Karl Buehr, a Chicago artist, the parent chapter was organized at the Chicago Art Institute in 1920. The roster contained 18 names of nonprofessional painters—business men whose great desire to paint far overshadowed their ability to execute. Yet from this humble beginning, with Mr. Elbert G. Drew, then secretary of the Illinois Bell Telephone Company, as president, grew the movement that has opened up a new world to the business man who has a liking for pencil sketching, etching or color work in oils, water colors or pastels.

An instructor was retained by the Chicago group. He holds two evening classes weekly. Two other classes each week, composed of men more advanced and eager to express in their paintings their own individuality, work without expert criticism. On Monday evenings

"There's a sales letter
to be proud of!"

"The paper makes a big
difference — we used
Hammermill Bond"



THE paper you use *does* make a difference if you want the sales message to earn the interest and respect of the reader.

If your letterhead bears the water mark "Hammermill Bond," the reader knows for one thing that you do business on the basis of standard values. For Hammermill Bond *is* the known and accepted standard of bond papers.

Thirteen colors and white—a practical color for each department and branch office. Bond or ripple finish. With envelopes to match all colors and both finishes.

FOR EXECUTIVES INTERESTED IN GOOD LETTERHEADS

HAMMERMILL PAPER COMPANY, ERIE, PENN.

Gentlemen: Please send me the Working Kit of Hammermill Bond showing specimens of the paper in its thirteen colors and white. Include also some of the newer typographical ideas in letterhead design.

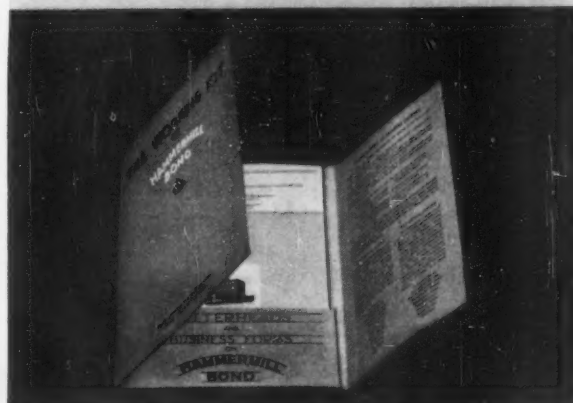
Name _____

Position _____

ATTACH THIS COUPON TO YOUR OFFICE LETTERHEAD

HAMMERMILL BOND

LOOK FOR THE WATERMARK
It is our word of honor to the public



Industrial Leaders



Ship In Hackney Steel

Not just one or two, but hundreds of industrial leaders are using Hackney steel containers for shipping liquids, pastes, foodstuffs and many other kinds of bulk materials.

The list includes such familiar names as—

Swift & Co., Phillips Petroleum, Frigidaire, Air Reduction, International Oxygen, Skelly Oil, C. M. St. P. & P. R. R., Standard Oil (Calif.), General Electric, Westinghouse Electric, C. & N. W. R. R., Du Pont, Grasselli

Chemical, Chas. Eneu Johnson & Co., and many more.

Companies who have found in Hackney's rugged, leak-proof construction far lower shipping costs—greater safety for their products—easier handling, emptying and cleaning—neater looking packages—better customer satisfaction.

The Line Is Complete

Hackney builds a complete line of—Seamless steel barrels with full removable heads or patented raised openings—Steel drums with full removable heads or patented raised openings—Two-piece barrels and drums—"Light Shippers"—Seamless steel cylinders—Special shapes.

Let us explain the low shipping costs of Hackney steel containers as against light weight packages. Write for the catalog and complete details.

PRESSED STEEL TANK COMPANY

1179 Continental Bank Bldg., Chicago
5777 Greenfield Avenue, Milwaukee, Wis.

1355 Vanderbilt Concourse Bldg., N. Y. City
487 Roosevelt Bldg., Los Angeles, Calif.

Hackney

MILWAUKEE

When writing to PRESSED STEEL TANK COMPANY please mention Nation's Business

the etchers foregather to share with one another the subtle mysteries of the dry-point, etched-line, soft-ground or aquatint processes.

To this retreat from the carking cares of the business day are drawn nearly 200 men in Chicago, men from all walks of life, whose fingers have itched to put down on paper or canvas the lovely things that are found in the out-of-doors, the city streets, or in some inanimate composition of flowers or still life. None is barred except professional artists and men under 30.

Perhaps there are many—we know of some—in whom the spark of genius was early subdued by having their knuckles rapped by parent or teacher for a childish effort at sketching, and who were admonished that they had better improve their time in learning to "figger." There are those who deal in wholesale fish that come to the evening classes to paint, and forget—. Here works a printer, there an engineer, a physician, architect, banker, chemist, attorney, executives and men from the lathe, indulging the urge to reproduce that which is lovely; representing a true democracy of kindred interests.

Then come the exhibitions of the work; several each year, here and there, in schools, hospitals, private clubs, in the department-store galleries. Those more gifted achieve the ultimate goal, the Art Institute. Thus the boy with the chastened knuckles forgets, in his hour of achievement.

An octogenarian turns painter

THE public press of April 29, 1930, noted the demise of one Alden Solmans, a banker, aged 96, who blazed a brilliant path as a painter, although the palette and brush did not become the symbols of his avocation until he had passed the eightieth milestone.

Nor are the ladies excluded from delving into the ancient treasure chest. One evening each month is set apart for a dinner, followed by criticism and analysis of the paintings, and preceded by a short talk on art by some outstanding painter and critic.

Sunny week-ends call groups to work in the nearby woods and dunelands, or, in season, to the rockbound coasts of New England and California, or the mountains of the Carolinas, to return with "catches" that represent more lasting pleasure than the finest trophies of the angler or the nimrod. When one finds and keeps the fleeting glory of the harvest sunset or the luscious freshness of the thicket after a springtime shower, then are margins and mergers stripped

Makers of
Machine Parts ♦ Food Products
Lawn Mowers ♦ Drug Products
♦ Candies ♦ Soap ♦ Shingles ♦
use A.W.A. Warehouses
In Distribution . . .
and so can you!

No matter what kind of product you manufacture, A.W.A. Merchandise Warehouses in 189 cities of the U.S.A., Canada, Cuba and Hawaii constitute a ready-made distribution system for your goods—a *flexible* system which can be developed as your business grows . . . sectionally, regionally, nationally.

In every trade territory you are trying to develop, our member warehouses can maintain spot stocks for you . . . just as your own branch house would do!

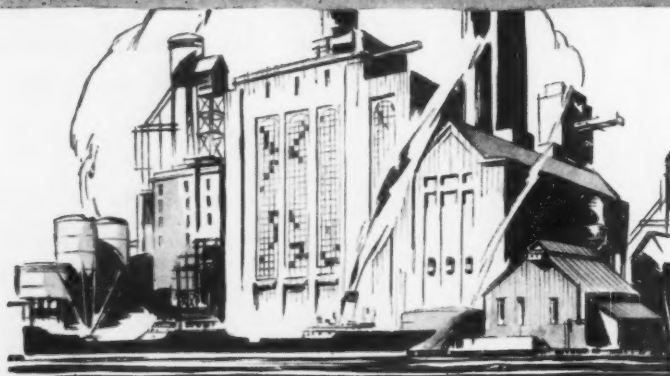
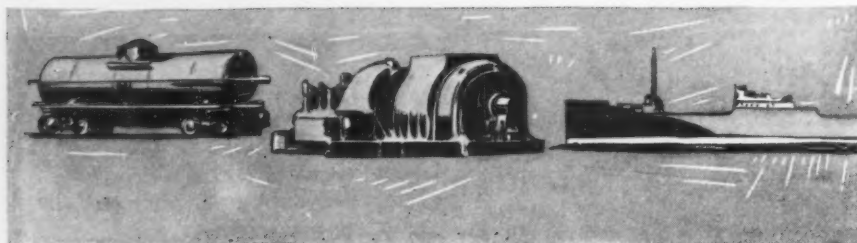
We receive your merchandise in carload or less-than-carload lots . . . store it for you until needed . . . and then distribute it wherever you wish—to jobbers, dealers or users. Your saving in freight will be large, and you will speed up delivery by days and weeks.

Send for Free Book

Our plan of distribution is fully described in a 32-page booklet* entitled: **"Increasing Your Sales Through the Use of A. W. A. Merchandise Warehouses."** Send for a copy today. The facts it presents may revolutionize your methods of distribution.

Merchandise Warehouse Division
AMERICAN WAREHOUSEMEN'S ASS'N
 1778 Adams-Franklin Building
 Chicago, Illinois

*Increasing Your Sales Through the Use of A. W. A. Merchandise Warehouses



CITIES SERVICE GREASES

Refined by experts . . .

proved in actual service

CITIES SERVICE experts know, from experience, the importance of high-quality grease as a part of any scientific plan of lubrication.

They have had grease problems of their own—on the huge equipment in the many public utility plants owned by Cities Service subsidiaries, on Cities Service tank cars, tankers, transportation lines and on the Cities Service fleet of more than 4000 motor vehicles.

Intensive research backed by 68 years of petroleum experience has taught Cities Service experts how to solve these grease problems—has enabled them to produce a complete line of greases that prove their quality in *actual service* before they are ever offered for your use.

A Cities Service engineer will gladly call and give you the benefit of his many years of practical lubrication experience.

CITIES SERVICE OIL CO.
60 WALL STREET NEW YORK

Cities Service Radio Concerts, Fridays, 8 P. M., Eastern Standard Time



ONCE - ALWAYS



CITIES SERVICE INDUSTRIAL OILS
QUALITY PROVED WHERE IT SHOULD BE PROVED IN INDUSTRIAL USE

When writing to CITIES SERVICE OIL CO. please mention Nation's Business

of their barbs and the balance sheet be better subjugated.

Quoting that talented journalist and fellow painter, Mr. S. J. Duncan-Clark:

If you want an avocation which will take you completely—body and mind and soul—out of the world of drudgery; routine, of business cares and sordid contacts; if you want an avocation which will recreate you mentally, invigorate you physically and exalt you spiritually; if you want the companionship of good fellows who love the life of the woods and streams, and who are bound by a tie of understanding and appreciation, come with us.

We invite you confidently because we know—We know a secret. Come, and we will share it with you.

An Early Patent Fight

NINETY YEARS ago Thomas Blanchard went down from Massachusetts to Washington to submit to Congress a then unprecedented request. He asked that body to renew for the second time his patent on a lathe so intricate and precise that it turned out reproductions in wood of the work of the best sculptors.

When members of Congress expressed their doubt that any such machine could have been invented, Blanchard explained that they had not heard of it before because he had used it chiefly to produce gun stocks and shoe lasts, that he had brought it to its present perfection only in the past 12 months, and that, to prove its efficiency, he would display in the rotunda of the Capitol a few days later wood copies of busts that had been made of Calhoun and Webster by eminent artists.

On the appointed day the statesmen found the wooden busts awaiting them on a table in the rotunda. Furthermore, in another room in the Capitol where the inventor had set up his lathe, they watched the machine as it transformed a block of oak wood into the head and features of George Washington.

That was enough for Daniel Webster. Praising the originality and usefulness of the machine, he led the congressional fight which ended in the patent renewal for a second time.

Blanchard, who was then more than 60 years of age, had already accumulated a fortune from his many inventions. He had sought that second renewal to prevent further pirating of his device. He had decided, he told Webster, that too many crooks were getting rich on his brain child.—J. H.

WEATHERTIGHT FIRESAFE BLAW-KNOX BUILDINGS *which protect their contents*

Fire, moisture, heat and cold—these must be guarded against if the valuable contents of your buildings are to be protected.



Blaw-Knox Building housing machine shop activities for Erie Malleable Iron Co., Erie, Pa., floor space 26,000 square feet. Easily heated in zero weather by two blower type heaters.



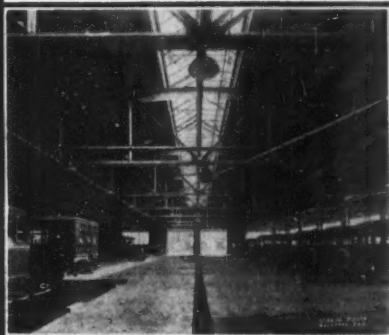
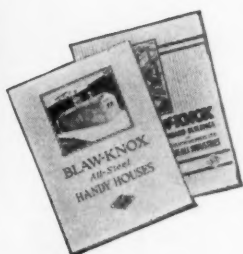
Blaw-Knox Building shown here as warehouse for storage of paper which must be protected against dampness and all excesses of heat and cold.

Blaw-Knox Standard Unit All-Steel Industrial Buildings offer a high degree of fire protection. Their design and patented features of construction assure positive weatherproofness. In addition, they are easily heated and ventilated.

Blaw-Knox Buildings are individually designed from standard units. All cover parts are of galvanized copper alloy steel. The roof is guaranteed for ten years.

Write for publications explaining their long life, low cost per year, easy and quick erection, flexibility, low insurance rates, and other pertinent facts.

*Save
with
Steel*



Blaw-Knox Standard trusses, columns, roof sheets and other parts are sometimes used in combination with brick or concrete block. Shown here in garage of Rockford Public Service Company, Rockford, Ill.



Blaw-Knox Building serving as warehouse for Barber Asphalt Co., Philadelphia, Pa. Basic materials affected by heat, cold and moisture are safely housed in Blaw-Knox Buildings.

BLAW-KNOX COMPANY

2032 Farmers Bank Bldg., Pittsburgh, Pa.

Please send me your catalogs of

STANDARD STEEL BUILDINGS AND HANDY HOUSES

NAME

COMPANY

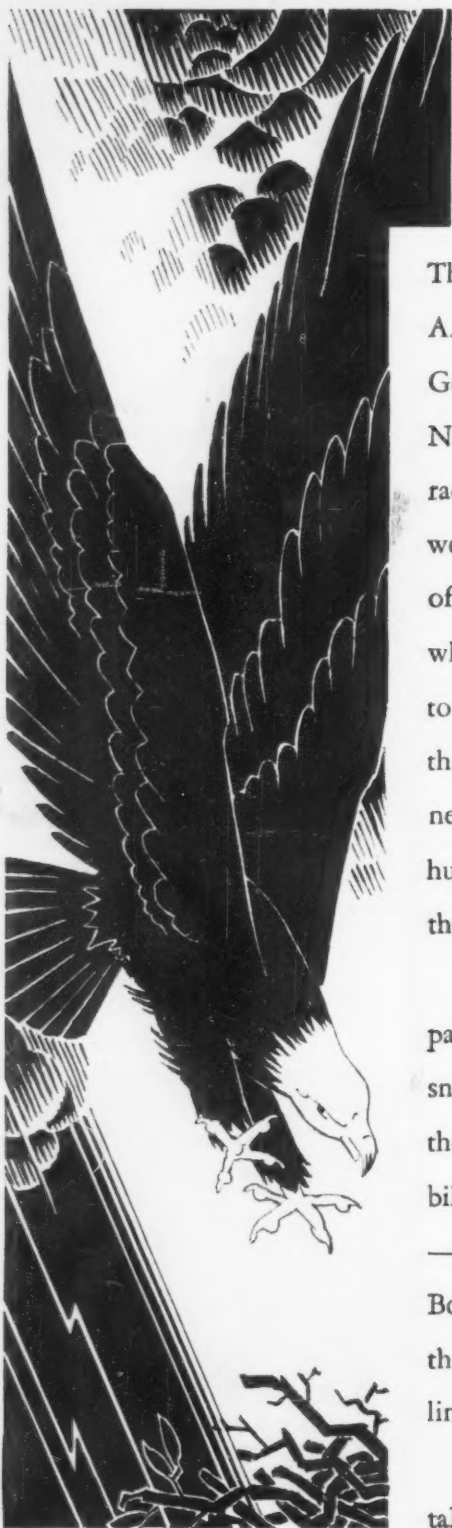
STREET

CITY STATE



BLAW-KNOX

EIGHT YEARS IN AN EAGLE'S NEST



That is the story, in brief, of two A. B. A. travelers cheques issued to George Walker by the Montrose National Bank of Montrose, Colorado. Lost in September, 1920 they were carried on the "missing" ledger of the A. B. A. until December, 1928, when B. D. Reazin returned them to the bank of issue, with the report that he had found them in an eagle's nest near Butte, Montana . . . five hundred miles from the place where they had originally disappeared.

The cheques were still unimpaired. Eight years of western sun and snow had made no impression upon their tough fibre. Such amazing durability yields to but one explanation—the cheques were made on Crane's Bond, the 100% new white rag paper that has been the leader of the Crane line since 1801.

Time . . . weather . . . an eagle's talons . . . take no toll of its excellence.

CRANE'S BOND

CRANE & CO · DALTON, MASSACHUSETTS

When writing to CRANE & Co. please mention Nation's Business



Light Has Been Trained to Work

(Continued from page 42)

out of it have come new processes for the decoration of various types of metal.

Up to this time the two principal methods for metal decoration have been stamping in dies engraved to impart the pattern, or machine engraving, engine turning, and other mechanical devices. By both processes beautiful work is done, but naturally there are limitations. The more beautiful designs are relatively expensive and considerable capital is tied up in the hand-cut dies. Time becomes a factor, and some gradations in design are difficult to reproduce.

Beebe proposed to replace patterns for pantographs and engraved stamp dies with photographic positives on glass plates. The resinous materials were found to be well adapted to the making of glass positives and to the coating of metal plates to form a tougher image. Speed of printing, satisfactory adherence to the metal, the ability to give a faithful reproduction of fine detail, and withal speed up the rate of production were problems solved through research and experiment.

Photoengraving of jewelry

THE early work has been done on watch cases and watch faces. Given the photo-sensitive materials and a photographic plate bearing the pattern to be reproduced on the metal and with the glass elsewhere clear to allow the transmission of the maximum actinic light to affect the resin, the process is easily manipulated by semiskilled operators. The pattern is projected on the metal to be decorated, the plate having been coated with one of the photo-sensitive varnishes. The pattern on the glass plate prevents light from falling on the coated metal, and here the lacquer or varnish is unaffected and remains soluble in a naptha developer. Elsewhere the light falls full on the photo-sensitive material, causing a reaction which renders it insoluble.

The next step involves developing in a bath of naptha, in which there is a little dye to make easier the inspection of the pattern which remains when the soluble resin has been developed or dissolved out. The pattern on the photographic positive may now be seen in the color of the exposed metal to be etched, and etching in a suitable acid bath is the next step. The degree of etching is of

ECONOMICAL TRANSPORTATION

ELISHA LEE, Vice-President of the Pennsylvania Railroad, is the authority for this statement: "No city in the world enjoys better railroad facilities than Philadelphia. None is more adequately and completely served. None possesses greater transportation advantages as a manufacturing and distributing center."

More than 1,000 miles of trackage lies in the city proper. It connects 220 freight stations and 2,000 industrial sidings. It serves tidewater piers with 16,000,000 square feet of floor space on a frontage of 36 miles on two rivers. 20,000 freight cars move in and out of the city daily.

This is only the beginning of even greater transportation service for the Philadelphia area.

The present railroad electrification program calls for the expenditure of one hundred and twenty-five millions of dollars.

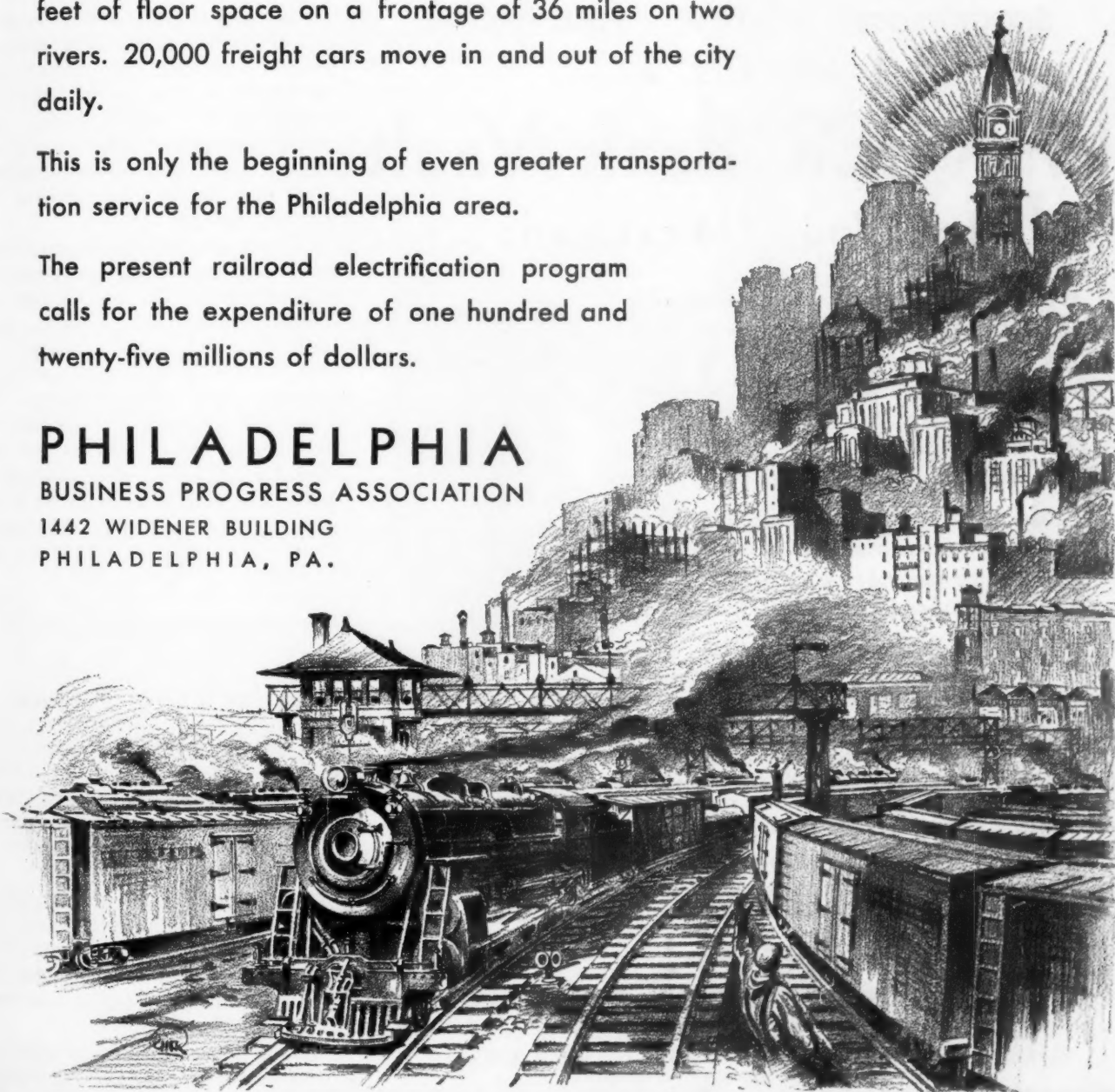
PHILADELPHIA

BUSINESS PROGRESS ASSOCIATION

1442 WIDENER BUILDING

PHILADELPHIA, PA.

"Transportation Facilities in the Philadelphia Area" will show you how lower shipment costs will increase net profits. Free to executives who request it on their business stationery. Address Department W.



BALTIMORE & OHIO — READING — PENNSYLVANIA

When writing to PHILADELPHIA BUSINESS PROGRESS ASSOCIATION please mention Nation's Business

DRILL PROOF

TORCH PROOF **5 POINT PROTECTION** BLAST PROOF

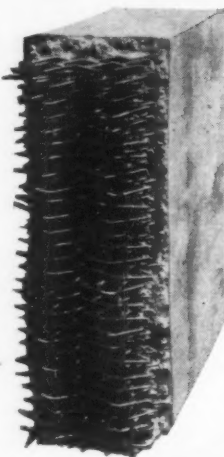
SHOCK PROOF Also FIRE PROOF

Means a
LARGER Bank Vault
for Your Investment

At no greater cost than that of the small all-steel vaults of other days, the banking house can now have a larger vault, built the Steelcrete way. Not only larger, but a stronger vault, that within all practical limits is proof against cutting flame, fire, drill, explosives and shock—the most complete protection known to engineering science.

Steelcrete vaults protect the resources of some of the greatest financial institutions in America. They may be adapted to any size of bank. Your local contractor and architect insure perfect construction.

Send for the FACTS about Bank Vaults—the results of tests, and certified endorsements from bankers and architects who thoroughly investigated before selecting the Steelcrete Bank Vault System.



This partially-concreted section of Steelcrete shows the dense, impenetrable armor mat that greets felonious assault. Remember—walls, floor and roof constitute 90% of the area subject to attack, and need protection equal to that of the vault door.

THE CONSOLIDATED EXPANDED METAL COMPANIES
Steelcrete Building, Wheeling, W. Va.

Branches: Boston Cleveland Philadelphia Pittsburgh Chicago New York Buffalo Detroit



OTHER STEELCRETE PRODUCTS FOR SAFETY

FRAME BAR and Industrial Mesh for Window Guards... Industrial Mesh for Safety Guards and Partitions
Metal Lath... Expanded Metal Concrete Reinforcement.

When writing to THE CONSOLIDATED EXPANDED METAL COMPANIES please mention Nation's Business

course controllable. It may be shallow or deep, depending on the strength of the acid and the time of the exposure. Following etching and washing, the etched portions may be decorated by a variety of means, or the resist may be removed in another solution and the whole surface finished in any one of a variety of ways, depending on the effects to be procured.

This is a type of the modern method which brings with it intensified competition but which, by affording a new tool and a new process, opens up a further field for manufactured products and adds to the choice of those who package fine goods or who wish to make the most of decoration in adding to the attractiveness of their merchandise.

If patterns may be etched on gold and silver, brass and bronze, why may they not also be etched on steel dies? This too has been accomplished by a variation of Beebe's method. The problem becomes somewhat more difficult, but not insuperable. The methods at the disposition of those who work metals are thereby increased and this is a real advantage. A selection of tools in skilled hands always makes for perfection in the final product.

Light as a tool has just begun its service. Such sensitive devices combined with television will make all sorts of things possible, will accelerate and widen the use of remote automatic controls, and bring us still nearer the manufacturing plant with a minimum of operatives and perhaps to the point of the manless factory, just as now we have power stations remotely controlled and visited only occasionally by those who inspect the machines and control devices and replenish the supply of lubricants.

Judge Gary, Pioneer

IN 1909 Judge Elbert H. Gary, head of the United States Steel Corporation, made a speech warning large business organizations against secrecy of operations and arrogant attitudes toward the public.

"The rich," he said, "must themselves put a stop to all this, or the mob will stop it. There would have been neither growth nor spread of antagonism to capital if there had not been something to justify it."

It was this speech which stamped Judge Gary as the outstanding pioneer in the movement of business to take the public into its confidence.—J. H.

What **STROMBERG-CARLSON** does when **JOHN SMITH** in the Bronx wants a **RADIO SET** **TODAY!**

WITH a tremendous number of outlets, large and small, in the New York market, Stromberg-Carlson requires hair-trigger distribution service—so that a single receiver or a truck load of sets can be delivered to their most remote metropolitan dealer, quickly and safely.

Sets, tubes and speakers can't be thrown about like bean bags. They must be carried tenderly and set down gently.

What does Stromberg-Carlson do when John Smith, in the Bronx, wants a radio set—today? Nothing—nothing at all. But capable, experienced Bush Terminal men do things—and John Smith gets his Stromberg-Carlson set, today

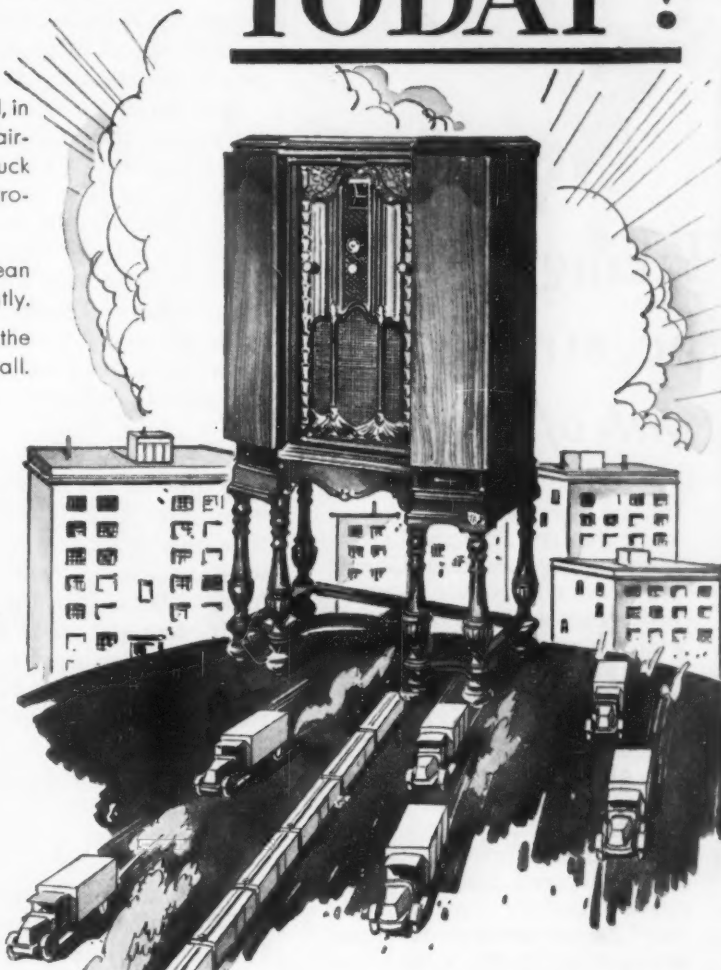
Stromberg-Carlson has found it easier and less expensive to use the Bush Distribution Service than to build and maintain an organization of its own. Bush trucks, men, buildings, organization—these are completely Stromberg-Carlson trucks, men, buildings and organization, as Stromberg-Carlson requires. Orders are filled quickly, carefully, from the ample stock always on call at Bush Terminal. Stromberg-Carlson pays for space, service and facilities only *when, if and as they are needed.*

THIS SAME TYPE OF SERVICE IS BEING UTILIZED SUCCESSFULLY BY OTHER MANUFACTURERS TO DISTRIBUTE MERCHANDISE IN THE METROPOLITAN AREA.

Is 50% of Distribution Costs Worth Saving?

A manufacturer who distributes his product with Bush facilities now pays \$28,405.50 instead of \$61,270, his costs when he maintained his own distribution organization. A saving of \$32,864.50 each year. Rent alone was reduced more than 50% . . . Many costs entirely eliminated.

At Bush Terminal a broad, flexible, varied service provides production economies and distribution efficiency. Seven enormous ocean steamship piers; miles of railway sidings; massive warehouses; 6,000,000 square feet of floor space; cold storage; steam, power and heat in any quantity. Highest standards in receiving, storing and delivering goods and unrivalled facilities for manufacturing or distributing on an "industrial apartment house" basis.



How can Bush help your business...?

We can't tell you in this advertisement except to say that Bush has solved and is solving so many diverse problems of production and distribution that it's hard to imagine any manufacturer or distributor serving the metropolitan area who could not be helped by Bush. Ask us for fuller details of the main service rendered by Bush. Descriptive literature on production and distribution will be mailed you on request. Specific questions will be answered in full by Bush expert service men, thoroughly equipped by long experience to help you discover just how Bush can help your business.

BUSH TERMINAL COMPANY

Metropolitan Facilities for DISTRIBUTION, WAREHOUSING and MANUFACTURING

Executive Offices: 100 Broad St., Dept. N, New York

Piers, Sidings, Warehouses, Truck Depot, and Manufacturing Lofts on New York Bay

When writing to BUSH TERMINAL COMPANY please mention Nation's Business



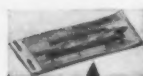
Taking the strangeness *out of travel*

You are never a stranger in any land if you carry American Express Travelers Cheques. Each Cheque tells others who you are because it carries your signature. You prove who you are by writing your signature a second time at the bottom of each Cheque when you spend it.

Your name on a Travelers Cheque gives you the equivalent of a checking account at over 60,000 banks, American Express branches and correspondents. Ordinary checks from strangers are seldom honored, but when you present American Express Travelers Cheques you are no longer a stranger, no matter where you may travel.

Your name automatically introduces you to the Helpful Hand of American Express service. It also opens to you the doors of American Express offices where 90% of all American travelers abroad assemble to get personal service.

Issued in denominations of \$10, \$20, \$50, and \$100. Cost 75c for each \$100. Sold by 22,000 Banks, American Express and Railway Express Agency offices.



the new, dollar size
**AMERICAN
EXPRESS**
Travelers cheques

Steamship tickets, hotel reservations, itineraries, cruises and tours planned and booked to any part of the world by the American Express Travel Department.

When writing please mention Nation's Business

On the Business Bookshelf

OF INCREASING public interest in the last 25 years has been the subject of conservation. In 1910 President Van Hise, of Wisconsin University, published "Conservation of Natural Resources in the United States." The work became, almost immediately, the most popular presentation of the subject.

Now, under the editorship of Loomis Havemeyer, the book, with a new title, "Conservation of Our Natural Resources,"¹ has been completely revised and rewritten by Gar A. Roush, Frederick H. Newell, Henry S. Graves, George S. Wehrwein, Paul G. Redington and Elmer Higgins. Each has rewritten or revised that part of the book dealing with his own particular field. The work is ably done.

WITH the remarkable growth of foreign investments made by Americans, a book showing what might have been expected in 14 years from average foreign investments is particularly interesting.²

Mr. Stern, vice president of the Equitable Trust Company, has charted the course of a hypothetical \$25,000 investment—half in bonds and half in stocks—from 1914 to 1928 in each one of 13 foreign countries and also in the United States and Canada.

OF THE many books on banking, that by Mr. Kniffin, "The Business Man and His Bank,"³ is especially valuable to the business man. It is written first for the business man instead of for the banker, and is entirely readable.

The book treats, in turn, types of banks, balances, checks, exchange, clearing house operations, credit, statements, acceptances and the Federal Reserve. Other less important phases of banking are also dealt with, and all are treated in an easily understandable manner.

UNDER a rather forbidding title,⁴ Victor Rosewater has written the dramatic story of the race for news from 1789, when the enterprising Samuel Topliff, Jr., put out in a rowboat to gather intelligence off incoming vessels, to the giant news-gathering associations of today.

He has done a scholarly job involving tremendous research but he has never

lost the drama of the story. The book is crammed with recitals of historic news beats, frequently reported by contemporary writers.

He has an interesting, and often thrilling, story to write and he writes it as one might write a novel.

ECONOMIC changes in recent years have made the problem of plant location one of the most important in industrial management.⁵ Mr. Holmes has studied the problem in the interests of both the manufacturer and the community.

He has brought scientific management of industry down to the problem of location.

Such factors in choosing location as the market, raw materials, transportation, fuel and power, labor, laws and taxes have all been explained so that information on them can be utilized to the best advantage.

THE American Institute of Steel Construction has published an interesting book⁶ on the proper height of buildings from an economic standpoint. The book and the conclusions are interesting. In brief, high buildings are considered economically necessary in high-priced land areas, as around the Grand Central Station in New York.

Many factors, it is pointed out, must be considered in erecting a building so

¹Conservation of Our Natural Resources, by Loomis Havemeyer, and others. The Macmillan Company, New York, \$4.

²Fourteen Years of European Investments 1914-1928, by S. Stern. The Bankers Publishing Company, New York, \$5.

³The Business Man and His Bank, by William H. Kniffin. Second Edition. McGraw-Hill Book Company, New York, \$3.

⁴History of Cooperative News-Gathering in the United States, by Victor Rosewater. D. Appleton & Company, New York, \$3.50.

⁵Plant Location, by W. Gerald Holmes. McGraw-Hill Book Company, New York, \$3.

⁶The Skyscraper: A Study in the Economic Height of Modern Office Buildings, by W. C. Clark and J. L. Kingston. American Institute of Steel Construction, Inc., New York.

A NEW IDENTIFICATION MARK

For the UNITED STATES STEEL CORPORATION
and its Subsidiary Manufacturing Companies



THE Subsidiary Manufacturing Companies of the United States Steel Corporation hold in common this simple ideal of service—constantly to seek improvements for their products, and to make these products available on a basis that assures a full measure of value. The new mark here introduced to you stands for this ideal of service and is a sign of quality. In future advertising and promotion work, it will be used in connection with the well known symbols of this Company.

American Sheet and Tin Plate Company

MANUFACTURERS OF BLACK AND GALVANIZED SHEETS, AUTOMOBILE SHEETS,
SPECIAL SHEETS, TIN AND TERNE PLATES

General Offices: Frick Building, Pittsburgh, Pa.

SUBSIDIARY OF UNITED STATES STEEL CORPORATION

PRINCIPAL SUBSIDIARY		MANUFACTURING COMPANIES	
AMERICAN BRIDGE COMPANY	CARNegie STEEL COMPANY	FEDERAL SHIPB'LDG. & DRY DOCK CO.	THE LORAIN STEEL COMPANY
AMERICAN SHEET AND TIN PLATE COMPANY	COLUMBIA STEEL COMPANY	ILLINOIS STEEL COMPANY	TENNESSEE COAL, IRON & RAILROAD CO.
AMERICAN STEEL AND WIRE COMPANY	CYCLONE FENCE COMPANY	NATIONAL TUBE COMPANY	UNIVERSAL ATLAS CEMENT COMPANY
Pacific Coast Distributors—Columbia Steel Company, Russ Bldg., San Francisco, Calif.		Export Distributors—United States Steel Products Company, 30 Church St., New York, N. Y.	





A fence that says "KEEP OUT" *and Means It!*

WHEN danger threatens, there must be no compromise with safety. Pittsburgh Chain-Link Fence provides a positive barrier against adventurers. Built of sturdy, substantial steel wire fabric and strong, tubular steel framework, it is as fine a fence as modern industrial methods can make. It is made completely, from ore to finished product, within our own mills, of special-formula copper-bearing basic open-hearth steel. Amply protected by a heavy, closely-bonded coating of zinc after weaving, Pittsburgh Chain-Link Fence is certain to resist the ravages of time and use.

Erection service is always available anywhere. Write to us for descriptive literature.

New York
Chicago
Memphis
Dallas
Detroit
Syracuse
San Francisco



Union Trust Building, Pittsburgh, Pa.

Pittsburgh Fence

CHAIN-LINK TYPE

that it will be neither too high nor too low to obtain the best financial return.

IN COOPERATION with the National Retail Dry Goods Association, the Wharton School of Finance and Commerce has published a study of wages and selling costs in department stores.

It is a thorough and scholarly presentation of a subject that heretofore has been much neglected.

"THE average man must earn his own livelihood. He should be trained to do so, and he should be trained to feel that he occupies a contemptible position if he does not do so." This quotation from Theodore Roosevelt is taken as the text of "You and Your Job" by James John Davis, Secretary of Labor, and John Calvin Wright, director of the Federal Board for Vocational Education.

"Why We Work," "Choosing Your Job," "Training and Education," "Getting the Job or Earning Your First Dollar," are some of the chapter heads in this book. It is written in light of the years of experience of the two authors.

It is an aid in the psychology and philosophy of work for young men and women who are leaving school to get their first jobs. It will give others a better view of their daily work.

Wage Methods and Selling Costs, by Anne Bezanson and Miriam Hussey. University of Pennsylvania Press, Philadelphia, \$4.50.

You and Your Job, by James John Davis and John Calvin Wright. John Wiley & Sons, Inc., New York, \$2.00.

Recent Books Received

Is It Safe To Work: A Study of Industrial Accidents, by Edison L. Bowers. Houghton Mifflin Company, Boston, \$2.50.

A Billion Potential Customers, American Mail Line, Seattle, Wash.
On Asiatic trade.

Industrial Accounting for Executives, by John R. Bangs, Jr. McGraw-Hill Book Company, New York, \$5.

Vocational Psychology and Character Analysis, by H. L. Hollingsworth. D. Appleton and Company, New York, \$3.

India's Political Crisis, by William I. Hull. The Johns Hopkins Press, Baltimore, \$2.

The Country Newspaper and Its Operation, by James Clifford Safley. D. Appleton and Company, New York, \$3.

The Government and Railroad Transportation, by Albert Russell Ellingwood and Whitney Coombs. Ginn and Company, Boston. \$4.

The Ordeal of This Generation, by Gilbert Murray. Harper & Brothers Publishers, New York. \$3.

Sensible Salesmanship, in twelve pamphlets, by Charles L. Low. G. P. Putnam's Sons, New York.

Your memory: How To Remember and Forget, by Herbert N. Casson. The Efficiency Magazine, London. 5/-.

Railroad Consolidation, by Julius Grodinsky. D. Appleton and Company, New York. \$3.50.

Harvard Business Reports, Volume 7. McGraw-Hill Book Company, Inc., New York. \$7.

Millions in Mergers, by H. A. Toulmin, Jr. B. C. Forbes Publishing Company, New York. \$3.50.

Increasing Your Sales Through the Use of Public Merchandise Warehouses, by John H. Frederick. American Warehousemen's Association, Chicago.

Aviation's Place in Tomorrow's Business, by Earl Reeves. B. C. Forbes Publishing Company, New York. \$3.50.

Standard Costs: Installation, Operation and Use, by G. Charter Harrison. The Ronald Press Company, New York. \$5.

Where Fire Insurance Leaves Off, by Clarence T. Hubbard. F. S. Crofts & Co., New York, 1930. \$2.25.

An Audit of America: A Summary of Recent Economic Changes in the United States, by Edward Eyre Hunt. McGraw-Hill Book Company, Inc., New York. \$2.

General Business Science, by Lloyd L. Jones and Lloyd Bertschi. The Gregg Publishing Company, New York.

The Labor Injunction, by Felix Frankfurter and Nathan Greene. The Macmillan Company, New York, 1930. \$5.

A CONSIDERATION of the labor injunction from the legal standpoint, but easily understood by the layman. Amply supported by references.

Commercial Structure of New England, by Edward F. Gerish. Bureau of Foreign and Domestic Commerce, United States Department of Commerce. Printed by Government Printing Office, Washington. 95 cents.

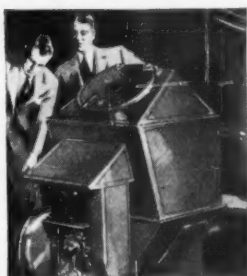
Industrial Structure of New England, by Charles E. Artman. Bureau of Foreign and Domestic Commerce, United States Department of Commerce. Printed by Government Printing Office, Washington. \$1.30.

TWO volumes with detailed statistics on New England collected with the help of the New England Council and other business agencies.



In how many buildings are you interested?

Heat them better at less cost with Iron Fireman



Iron Fireman users average fuel cost savings of more than 30 per cent.



THE CHILDREN'S HOSPITAL
COLUMBUS, OHIO

Heated with an Iron Fireman. Fuel saving reported \$140 per month. Uniform temperature. No smoke. Save 40 per cent of firing labor cost.

BESIDES OUR OWN HOMES and business institutions, many of us feel an interest in, or responsibility for the welfare of several other buildings, homes, institutions or plants of those who, for one reason or another, are inclined to lean upon us.

Many business men are listing every home or building for which they feel directly or indirectly responsible, and are asking Iron Fireman engineers to check up and report back on what Iron Fireman would cost . . . what it would save . . . and what improvements in heating conditions it could be expected to make in each individual case.

Iron Fireman is made in sizes to do any firing job from the small home furnace up to large commercial heating and power plants. It is sold and serviced by a national organization of engineers and dealers. Users are receiving a firing service so reliable and so economical that Iron Fireman, on an average, writes itself off the books in *30 months on fuel cost savings alone!

Iron Fireman engineers will gladly make a survey and report to you, without obligation, on what Iron Fireman would do for you, in any building or home in whose heating or power you are interested. Catalog on request. Iron Fireman Manufacturing Company, Portland, Oregon. Branches in Cleveland - St. Louis - Chicago. Subsidiaries in New York and Milwaukee. Dealers in principal cities.

*Industrial sizes. In domestic plants the average per cent fuel saving is even greater, but because of the much smaller coal consumption, its earnings on investment are less. A recent tabulation of fuel costs in home heating plants showed that Iron Fireman users make an average annual fuel cost saving of \$91 per home per season. © 1930 IFCO CO.

IRON FIREMAN

AUTOMATIC COAL BURNER

...the machine
that made coal
an automatic fuel



When writing to IRON FIREMAN MANUFACTURING COMPANY please mention Nation's Business

MACHINERY - EQUIPMENT

**SOLD ON CREDIT—
FINANCED BY C. I. T.—**



**BANKERS TO
INDUSTRY
EVERYWHERE**

DOES your Company make or sell a standard line of machinery or equipment? There is a C. I. T. representative in your territory, a trained finance man who will be glad to sit in with your officers and advise you from our experience with all phases of time payment selling.

Out in the markets where you sell there are other C. I. T. men operating a great network of local offices which give that much needed close-up service in checking credits, making collections and following up instalment details.

In New York, Chicago, San Francisco and Toronto are the head offices of C. I. T. Companies, with resources to meet the financing requirements of any client however large, and with an organization which permits efficient, continuous service at fair rates to all clients whether national manufacturers, regional distributors or local merchants.

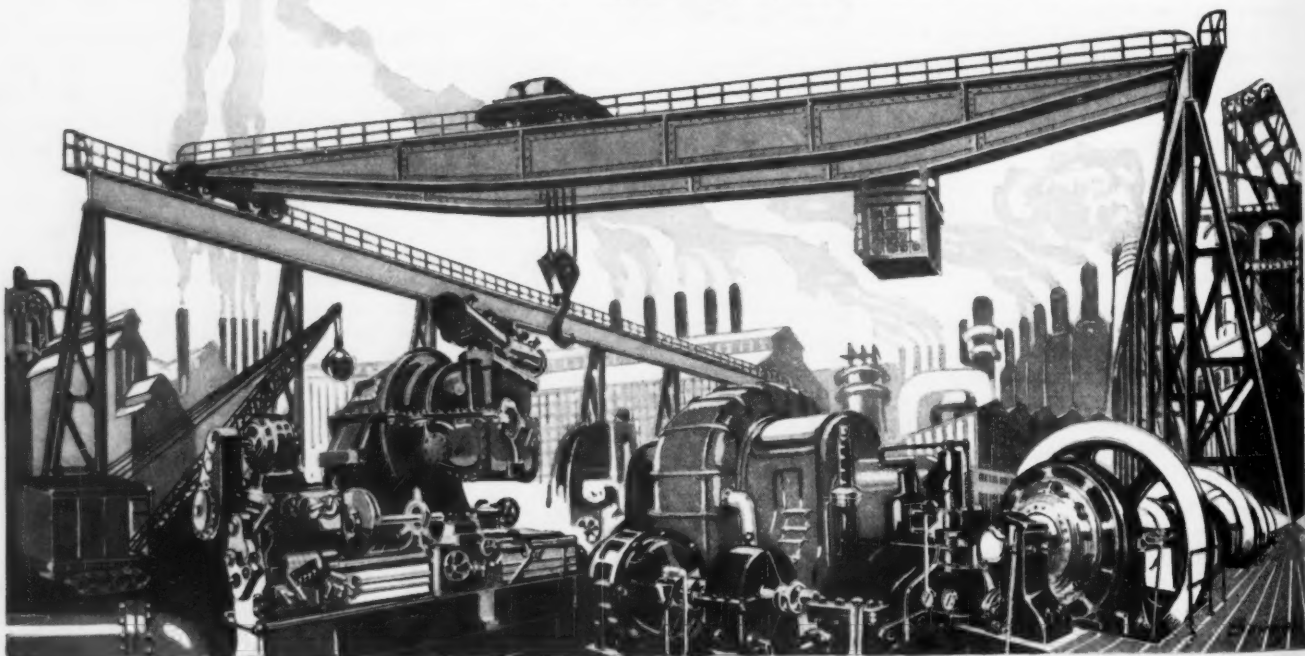
Among other types of products sold on credit and financed by C. I. T. are aircraft, automobiles, furniture, radios, refrigerators, etc.

COMMERCIAL INVESTMENT TRUST CORPORATION

Executive Offices

One Park Ave., New York

Subsidiary and Affiliated Operating Companies with Head Offices in
New York • Chicago • San Francisco • Toronto • London • Berlin
Brussels • Paris • Copenhagen • Havana • San Juan, P. R. • Buenos
Aires • Sao Paulo • Sydney, Australia. Offices in more than 160 cities.



CAPITAL AND SURPLUS OVER \$100,000,000

What Wall Street Is Talking About

By MERRYLE STANLEY RUKEYSER

ECONOMIC realities change fashions in business thinking. As a result of the stern requirements of the readjustment period, executives have found opportunities for further heightening operating efficiency where none seemed to exist before. Furthermore, consumers have temporarily modified their habits in ways that "new-era" prophets a year ago would have considered impossible.

Necessity is a powerful convincer. Accordingly, there has been during recent months an unheralded elimination of sore spots and weaknesses from the business structure. Behind the recession there has been a healing process, which has put the body economic in a stronger condition than before. The comeback doubtless will be somewhat slow, but the stage is gradually being set for a new and larger period of expansion and development.

Perhaps the most profound alteration is psychological. Men have withdrawn their faith from the principle of the lottery, and are again turning their thoughts to working and saving. The pilgrimage of young men from the high schools, colleges, business offices and professions into Wall Street has been stopped, and there is a new recognition that wealth creation lies in the production and distribution of commodities.

The social cost of these indirect benefits of depression is heavy, and in a more civilized economic society there perhaps will be gentler ways of ridding business and finance of periods of inflation.

The causes of recession go deep, and were to a large extent sown months back during the earlier period of over-exploited business expansion and bull markets. Overdoses of easy money in the summer of 1927, for example, helped to bring about a situation three years later when money was infinitely cheaper, yet unwanted.

President Hoover and modern economists have raised hopes for preventive medicine in business, and it is to be hoped that the trend will be in that direction, especially since business is coming more under the sway of efficient and

scientific managers, who are gaining at the expense of the old-fashioned hit-and-miss school.

THOUGHTFUL observers are reluctant to give a time table for business recovery, especially in view of the high mortality of forecasters' reputations in the last year. Professional prophets, such as the Harvard Economic Society, erred in underestimating the extent and duration of the recession.

The Administration, which did wishful thinking in published bulletins at least, was premature in predicting a return of prosperity. A French journalist recently revealed that privately President Hoover has recognized the seriousness of the business situation. He has as a matter of fact considered the situation parallel to the setback in 1907-08.

An examination of the fundamental forces at work encourages the belief that the next major movement will be upward. As this issue reaches the reader,

seasonal forces will be operative to heighten trade substantially above the low summer levels. Business ought to march upward for the remainder of the year, and for the first half of next year.

The statistical department of one of the great corporations predicts normal business by next July, and trade two per cent above normal by the end of 1931. This seems a sensible, tempered forecast, which may prove somewhat of an understatement.

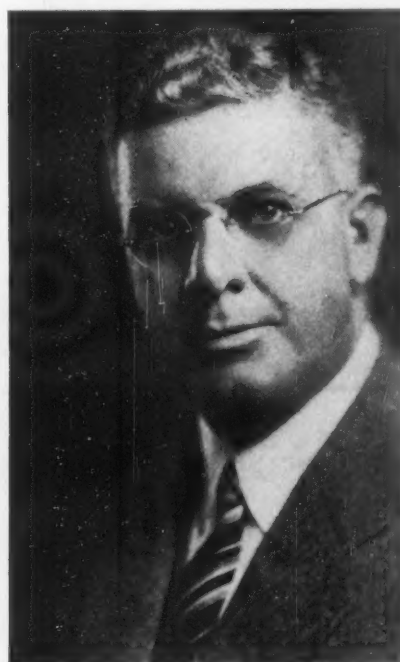
IF there is to be a gradual revival of prosperity, common stocks will ultimately benefit, but experience has shown that there has been a variety of false starts before the real climb.

Monetary conditions are especially favorable to bonds, and it seems reasonable to expect a bull market in bonds before another bull market in stocks.

Meantime, the lay investor ought to adhere to a balanced investment diet, consisting of cash, short- and long-term

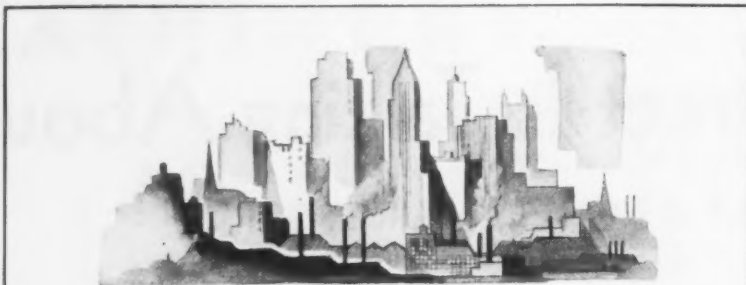


Eugene Meyer has been appointed by President Hoover as the new governor of the Federal Reserve Board



Roy A. Young, former governor of the Board, resigned to become head of the Boston Federal Reserve Bank

PHOTOS BY UNDERWOOD & UNDERWOOD



"Take charge of the Middle West next week"

A district manager for an Eastern shoe company was promoted to a bigger job. His salary increased. His surplus for investment increased.

But, his executive duties also increased. Between sales meetings, road trips and office work, he could devote less attention to his own holdings. Formerly he had "shopped around" among different investment houses. Would he save time and trouble by dealing with a single large investment organization?

WHAT he will find in National City service

CONVENIENT OFFICES.

National City offices throughout the world are at his command.

MARKET CONTACTS.

National City offices are in close touch with all investment markets.

INVESTMENT EXPERIENCE.

He will be dealing with an organization with a background of over a century of financial experience.

INVESTMENT RANGE.

National City's broad lists are made up from the world's finest investment offerings.

Whatever *your* investment problem may be, you will find practical and prompt assistance at your nearest National City office.

The National City Company

NATIONAL CITY BANK BUILDING, NEW YORK

INVESTMENT



SECURITIES

Resourcefulness

is the great American asset. On every page of American business history it writes its tribute to men who knew how to think "out of the groove" and find new, ingenious ways to meet the new problems that shifting conditions brought. Examples of resourcefulness that may be applied to various business enterprises are reported consistently in every issue of NATION'S BUSINESS that comes from the press.

bonds, preferred stocks and selected common stocks. A balanced diet constitutes a hedge against conditions, and in this era of exploded prophecies the sagacious will want to preserve their principal irrespective of the temporary vicissitudes.

CONSUMPTION seemingly has been running ahead of production, and has thus been gradually laying the basis for recovery.

Caution may cause the recession to swing further than warranted by fundamental conditions, but, if that is the case, the swing back will be more violent.

Perhaps as John M. Hancock, partner of Lehman Brothers, remarked, business will turn when business men tire of being pessimistic.

OPTIMISM is still the normal state of the American business man. In times of recession, he is inclined to say nothing.

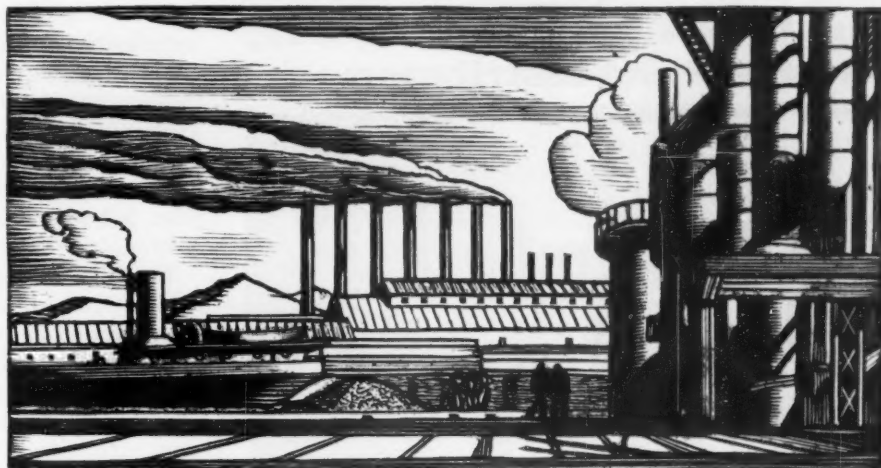
The spirit of the period was caught by a drawing in a recent *New Yorker*. It showed two peddlers meeting in Grand Street. One asked the other how business was, and he was greeted only with silence. Protesting, he received this counter question from the other peddler, "Does Macy's tell Gimbel's?"

THE Northwest and perhaps the South were seemingly less adversely affected by the drought than the Middle West. The industrial Middle West, moreover, has perhaps been hardest hit by the recession phase of the business cycle. Collections of finance companies indicate that the eastern seaboard and the Pacific Coast showed relatively more stability.

J. A. Lengby, executive of the Great Northern Railway, in a message to this department, said:

"The drought has reduced crops in some sections along the Great Northern, but other sections are going to come out very well. Taking our territory as a whole, I think we are justified in saying that the farmers along the Great Northern are going to be in a much better situation than those in other districts. Usually the bulk of the crops in our territory moves to market in October and November, depending of course on market conditions. Diversification is probably the most outstanding development in this territory."

Though the drought was an unfortunate incident, it came at a time when it helped to raise the nation from a



DECORATIONS BY ROCKWELL KENT • CUT IN WOOD BY J. J. LANKES

Investing in Underlying Industries

UNDERLYING the present and future development of all modern countries are their great basic industries, engaged in turning raw materials into commercial products and distributing them to consumers. The growth of these industries has been remarkable and, regardless of minor fluctuations, should continue to be very great.

Total petroleum production for the four year period 1901-05 was 100 million barrels. In 1928 alone it was 900 million barrels. During this 1901-05 period steel products in the United States were about 13 million long tons. They advanced to about 37 million in 1928. Mineral products increased in value from slightly over 1 billion to well above 5 billion dollars. Between 1899 and 1927, manufactured food products increased

in value of annual production from 2 billion to 11 billion dollars.

In keeping with its policy of broad diversification, United Founders Corporation, directly and through subsidiaries, invests in industrial securities carefully selected for present soundness and future prospects. These have been chosen from mining, oil, iron and steel, food and tobacco products, merchandising, and other industrial companies. On May 31, 1930, the combined portfolio included 79 American industrials, and 64 chosen from 18 countries throughout the world.



United Founders, directly and through subsidiary investment companies, also has broad holdings in five major fields: insurance, public utility, railway, investment company and banking.

UNITED FOUNDERS CORPORATION

An Important Consideration for National Manufacturers and Distributors

1st
NATIONAL BANK
—IN ST. LOUIS

ST. LOUIS' LARGEST BANK

NATION WIDE SERVICE

60 DIRECTORS

60 OFFICERS

COMPLETE FINANCIAL FACILITIES

NATIONAL business comes to St. Louis to develop its trade in the South and Central West. An important consideration in these trade expansion plans, is an influential banking connection. The First National Bank, St. Louis' largest bank, is a center of influence in the business life of this vast trade territory. Acting as the financial representative in this territory for national manufacturers and distributors, this organization has not only a national point of view, but exceptional facilities for rendering every banking service.

FIRST NATIONAL BANK ST. LOUIS' LARGEST BANK

This is a Floor Type Multiplax for displaying maps, blueprints, charts, photos, advertising, etc. Other styles available.



Swinging Wing Fixtures That Keep Your Data at Your Finger Tips

Write for Catalog

Like a large loose-leaf book placed in a vertical position. Any number of wings furnished in almost any size. Thumb-tack board fillers. Both sides used for display purposes. Racks for wings made in various styles. Send for Catalog and Price List.

MULTIPLEX DISPLAY FIXTURE CO.
926-936 N. Tenth St., St. Louis, Mo. 01111

VISUALIZE BUSINESS with Graffco MAPTACKS

Graphically show developed territory, location of dealers, etc. Why Graffco Maptacks? Because the finest made, with uniform spherical heads, needle points, brilliantly enamelled. 3 sizes, 20 colors, 1000 combinations. At your dealers, or write.

GEORGE B. GRAFF CO.
80 Washburn Ave. Cambridge, Mass.



lethargic psychological depression. The emergency relief emphasized anew the capacity of the country to carry on large ventures successfully.

Where huge surpluses were threatened, the drought even brought relief by helping to bring supply and demand in better balance. However, the drought was blind, chaotic, uneven and unintelligent relief, helping some at the expense of others.

The relief, for example, might have been enjoyed by the wheat growers in the Argentine and in Australia at the expense of the corn growers in Iowa. In the past, American farmers have usually got as much or more money from small crops as from large.

LARGE developmental programs in the Far West point to better conditions. A. J. Mount, president of the bank of Italy National Trust & Savings Association of San Francisco, told me:

"The question as to whether there is any evidence of approaching business improvement in this district must be bisected into what might be termed a positive and a negative factor. The positive factor relates to the actual beginning and the active prosecution of a number of development plans from one end of the coast to the other.

"Up in Washington, a few miles out of Wenatchee, we see preparations completed to build the first dam across the Columbia River, a development that will call for the expenditure of some \$15,000,000 within three years. This will inaugurate the movement for the opening up of the whole vast Columbia Basin, a project that will run second only to Boulder Dam.

"Farther south, construction work has actually begun on the Great Northern-Western Pacific Railroad hookup, which calls for the building of a 200-mile relay of track between Klamath Falls, Oregon and Keddie, Calif., and which will result in the bringing of a fourth transcontinental rail system into Central California. More than that, it will give the Old Northwest of the Dakotas, Wyoming and Montana a new seaport, which chances to be one of the finest and most commodious harbors in the whole world, the Port of San Francisco.

"I am also advised that surveys for the railroad into Las Vegas, Nev., preliminary to the building of Boulder Dam across the Colorado River, are under way. The United States Reclamation Service already has its project manager on the ground at Las Vegas, and that means that this epochal project will go

ahead at an ever-widening and increasingly rapid pace.

"I do not think I am overstating it when I say that the whole Pacific Slope presents a panorama of development. Ordinarily, general business expansion is built on such fundamental improvement and expansion of natural resources. By every economic law, trading of all sorts should be greatly stimulated, all types of industrial and mercantile inventories should be greatly renewed, both buyers' and sellers' markets should reach a more even and stable equilibrium and the evidences of depression should disappear.

"But somewhat there is a tendency to disregard the fact that the great, motive forces of progress are at work everywhere, and that is where the negative factor enters in. It is an extraordinary period in which business must wait for renewed public confidence despite the fact that the position of business in general is becoming appreciably stronger every day. The most sensitive economic barometers fail to record any particularly low pressure areas anywhere as far as actual business stability is concerned.

"Therefore, I think that the most important question the economists must answer now is how much of this present depression is based on actual business conditions and how much on the state of the public mind?"

BUSINESS is surprisingly interrelated. Summer children's camps, resort hotels at home and abroad, and night clubs have all experienced subnormal bookings. But in the face of recession, miniature golf courses have boomed. As a matter of fact, certain exceptional industries and certain outstanding corporations have been able to buck the trend.

The public-utility industry, especially water companies, the foodstuffs, electrical equipment industry, and tobacco trade have stood up relatively well.

Moreover, according to a compilation of the Standard Statistics Company, nearly 100 listed corporations showed higher net earnings in the first half of depressed 1930 than in the corresponding period of the boom year 1929. These performers were exceptional. Three hundred and eighty-three representative corporations reported an aggregate decline in net income of 24 per cent, compared with the first half of 1929. Of these, 339 industrial companies showed a shrinkage of 27 per cent in earning power; 28 railroads a setback of 36 per

an old formula has changed

"No longer can the business man work hard for twenty years, attain success and then sit back to reap the rewards of diligent effort. It could be done in 1900 . . . it can't be done today.

"Competition and change and the passing of time have together wrought a great variant in the old success formula. A man may work hard and attain success . . . but he must work even harder to hold on to it.

"In the twinkling of an eye, the labors of a lifetime can be swept away in the current of change. Overnight, something new . . . produced in a new way . . . may relegate your product to the industrial junk heap."

From NATION'S BUSINESS



And . . . to know what these swift changes are doing for producers and users of power . . . leading engineers and executives visit the National Power Show from every industrial center of this country and the world. Each year the number of visitors has increased. This year's Exposition will surpass all predecessors in interest, in volume, in importance.

Let nothing keep you from this, the outstanding engineering activity of the year.

Management International Exposition Company

December 1 to 6, Grand Central Palace, New York

4802



The Securities of Ohio Corporations

which include those of many companies that are vital factors in the great industrial structure of the United States, have attracted investment capital from probably every state in the Union.

We have maintained for years, in our Cleveland office, an Ohio Securities Department, devoted exclusively to Ohio securities, listed and unlisted, which is now being used by investors in all parts of the country. It is supplemented by offices in Cincinnati, Columbus, Toledo, Canton, Massillon and Akron, Ohio, private wire connections and memberships in the Cleveland, Cincinnati and Columbus Stock Exchanges. Through this department we offer a highly specialized service in Ohio securities.

OTIS & CO.

Established 1899

NEW YORK CLEVELAND CHICAGO

Members New York and other leading Stock Exchanges



BE it ever so palatial, be it ever so humble, there's no place like home for walloping one's thumb with a hammer—and who hasn't! Not all of us, however, will get off that easy.

Slipping in the bathtub, tumbling downstairs, stumbling over the children's playthings—such everyday incidents account for two out of every five non-fatal home accidents—while one out of every four *fatal* injuries occurs under the domestic roof.

But why all the gloom? You can't help what you can't help! But you can *Ætna-ize*—and make home, *sweet* home.

An *Ætna* Accident Policy will help keep you on your feet financially—and, of course, provide for the family should the accident prove fatal.

Why not see or phone the *Ætna* Agent in your community for details? He's a man worth knowing. Tear this out as a reminder.



Ætna Casualty and Surety Company
Ætna Life Insurance Company
Automobile Insurance Company
Standard Fire Insurance Company, Hartford, Conn.

ÆTNA-IZE

When writing please mention Nation's Business

cent, whereas 16 public-utility corporations reported an increase of 2 per cent in net income.

THE resignation of Roy A. Young from the chairmanship of the Federal Reserve Board on account of the penuriousness of the salary emphasizes a foolish trend in American life. There is a reluctance to paying market salaries for talent. The result is to tend to limit the array of officeholders to rich men or to those who intend to benefit indirectly from public service.

Until recently, popular prejudice kept the very rich from office, but the late President Harding shattered that tradition in appointing Andrew W. Mellon to the secretaryship of the Treasury. As for the others, many are attracted by opportunities for graft and perhaps still more by a belief that public office is a stepping stone to lucrative berths in private business. Until public office pays reasonable salaries, the effort to make governmental work a life career will be destined for disappointment.

BUSINESS observers are discussing the so-called "easy-money fallacy," recognizing that mere cheap money does not magically bring prosperity. The prospect of profits is in the last analysis what induces the executive to project new enterprises or to increase the scope of his operations, not the mere fact that interest rates happen to be low.

One reader asks:

"May not the lag between the decline in credit rates and revival in business be explained as the time taken to iron out and to readjust the stresses and strains that arose during prosperity, the major difficulties being maladjustment of different sets of prices and lack of equilibrium between supply and demand in certain groups? If easy credit is the cause of revival, why such long lags?"

IS the country on the eve of a turn-about in copper prices? Some of the large copper vendors say so. The head of one of the principal copper companies told me:

"It is my opinion that the price of copper within any reasonable limitation does not affect the consumptive demand. The price of raw copper is such a small fractional part of the total cost of finished products in which copper enters, that a difference between a very low and a reasonable price is not a consequential factor in the cost of the manufacture or fabrication of such products.

"The current price is a reflection of an unjustifiable overproduction which resulted in surplus stocks and does not reflect either the value of the metal or any adequate margin of profit."

W. J. DONALD, managing director of the American Management Association, after a survey of farm conditions, concluded:

"It may be that the frontier of management lies in agriculture and that the West will produce new contributions to management as it has in many other phases of American life. If corporation farm management can produce wheat at 25 to 30 cents a bushel, what hope is there for the marginal farmer?"

"The marginal producer will continue to suffer in agriculture just as he always has in every other line of business. Instead of pitying the marginal producer, we should encourage the efficient producer, and if modern methods mean large-scale operations, what of it?"

"There will always be marginal producers but, instead of trying to enlist our sympathy, they ought to enlist the help of professional managers and practical help will be identical with modern management."

JAMES W. GERARD'S list of the 59 men who rule America caused much discussion. They are men of great influence. But Mr. Gerard's characterization of these men is a hyperbole.

In the first place, the list overlooks the great importance of men of vast local reputation, such as Herbert Fleischhaker of San Francisco.

Moreover, it also overlooks the fact that we are not entirely a nation of serious thinkers. Will Rogers, Believe It or Not Ripley, Amos 'n' Andy, and Clara Bow also sway the populace.

Though politicians as a class may be shifting into the background, men like Alfred E. Smith and Herbert C. Hoover are more than mere puppets.

But there is fundamental truth in Mr. Gerard's imputation that the center of power has been shifting from politicians to business statesmen. Nowadays, creative bankers and resourceful industrial executives acquire sovereign influence, and they hold their sway only during good behavior.

Two decades ago, instead of picking 59 men, Mr. Gerard might have picked only the late J. Pierpont Morgan. Incidentally, John K. Winkler, in his new book, "Morgan the Magnificent," presents the first citizen of Wall Street in new lights and hues.

The ABC of Rail Holding Companies

(Continued from page 17)

organizations have made repeated efforts to get more effective unification within their structure. Time and again they have submitted to the Commerce Commission plans for true amalgamation of two or more operating carriers. It is conceivable that in the minds of the leaders who have assembled this group, the present webwork of holding corporations is merely a transition expedient, presently to be discarded when more workable, permanent forms of organization are attainable.

Since railroads are at bottom remarkably human business institutions, struggling for traffic that is their life blood, this factor of influence on traffic can stimulate much advance toward merger.

In many ways the contest over ownership of connections between the great carrier groups really represents a continuation in intensified fashion of old rivalry on a new plane, and at bottom presages sharpened rather than lessened rail competition.

As yet congressional reaction to the study of newer rail financing methods has been far from violent. The characteristic sufficiently obvious in it—by which domination over vast aggregations of property is achieved by individuals who bear only a minor share of whatever hazard there is in ownership—has been somewhat criticized. The conservative retort is that investors in holding companies know the facts or should know them. Likewise, many thoughtful legislators consider that the corporate form the modern investment trend is taking is entitled to congressional respect for several reasons.

The comment of Senator Fess

"CERTAINLY, the important thing in public interest is to see that nothing is done to interrupt the supply of new capital to railroads," Senator Fess of Ohio commented in explaining this viewpoint. "That is what concerns me most in approaching the inquiry. We know that investment trusts and their like are custodians today of an ever-growing proportion of the capital that accumulates for the supply of industry, and we know, too, that railroads are always going to need new capital to finance their progress.

"Now I am anxious that nothing be unnecessarily put into legislation which

will hamper markets for railroad securities or limit the opportunity of corporations and investment institutions to deal in them, which would destroy their liquidity and so injure or restrain railroad credit. That is a real danger that we ought to be careful to avert."

Neither is the railroad labor union intervention in the consolidation argument likely to raise serious obstacles to final adjustment. Any reduction in labor forces possible from rail merger can, with little difficulty, be so planned that the normal retirements and departures of workers from service will more than equal the decreases sought.

Two views of the situation

ADDITIONALLY, while the Interstate Commerce Commission is plainly disconcerted by the escape from its control over consolidations which the rise of the holding companies has effected, there is obvious disposition in railroad and banking circles to accept the reality with a great deal of philosophy. The wholesale national plan of the Commission for consolidations has not met with entire favor in those quarters.

Even people who look for more efficient transport operation at lesser costs to result from consolidation of railroads are inclined to concede that the proper way to the end would be to encourage relatively slow and selective steps toward the final goal. It is argued that the size and scope of new and greater railroads should be determined by the initiative of railroad managements rather than by the notions of a government bureau. Many regard holding companies as logically engaged in experiments with the possibilities. Moreover, in consolidation matters, the Interstate Commerce Commission is dealing with questions of ownership, facing all the time the old adage that possession is nine points of the law.

A government tribunal that assumes to tell one group of owners to sell and another to buy railroad properties is inviting disregard of its own proposals. Railroad consolidation is now dangerously near stalemate. Rather few railroad men expect it to come out of that chancery unless and until Congress and Commission let owners and operators of railroads have wide latitude in which to make progress with merger along the lines of proven advantage to themselves and the national interest.



Thousands of Washing Machines are Demonstrating SHAKEPROOF Lock Washers



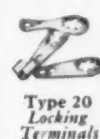
Type 12
Internal



Type 11
External



Type 15
Countersunk



Type 20
Locking
Terminals

U. S. Patents
1,419,584
1,884,122
1,987,954
Other patents
pending.
Foreign patents.

THE faithful and efficient performance of the modern washing machine is the reason that it is found in hundreds of thousands of American homes today. Years of trouble-free service have been provided by wise manufacturers who realize that satisfied customers are essential to increased profits.

Shakeproof Lock Washers are used by most leading Washing Machine Manufacturers because exhaustive tests have shown that Shakeproof provides the greatest protection for their products. In fact, wherever nuts and screws are used, the twisted steel teeth of Shakeproof Lock Washers will improve performance and reduce costly customer complaints to a minimum.

Your product deserves Shakeproof protection, too. Be sure to send for free samples, today!

SHAKEPROOF Lock Washer Company

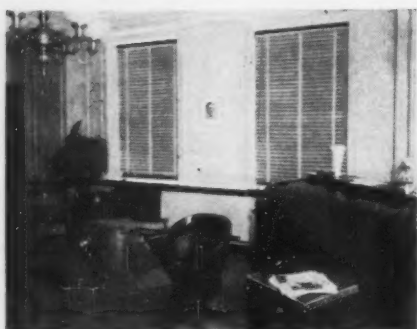


(Division of Illinois Tool Works)
2537 N. Keeler Ave., Chicago, Illinois

"It's the Twisted Teeth that Lock"

When writing please mention Nation's Business

GREATER VALUE from your window openings



Better work is done when the mind is free from agitation by personal discomforts. Good blinds add to productive effort. An office in the Standard Oil Co. of Ohio, Builders Exchange Bldg., Cleveland.

AIR and sunlight pour into window openings like water through an opening in a dam . . . in uncontrolled volume.

But break up this torrent, diffuse it, and you gain all the advantages of adequate light and ventilation without the objectionable features of glare and drafts.

See how Victoria Venetians with their true, even slats (readily adapted to any angle desired) break up the light, diffuse it. Light enters even the farthest corner. You gain the advantages of having all the available sunlight and with it, ventilation.

Not expensive either. Victoria Venetian Blinds sell at a price that in a few short years represents a very substantial saving over any other kind of window equipment.

THE BOSTWICK-GOODSELL CO.

Blinds Since 1894

Norwalk, Ohio

Representatives in Principal Cities



VICTORIA VENETIANS

The Better Blinds

When writing please mention Nation's Business

James A. Farrell, Master of Steel

(Continued from page 36)

that any more testing was necessary. "What do you think I'd better do?" he said.

"I think you'd better come down to the bank with me and lift the drafts," I answered. He did and I went back to Pittsburgh with the money."

Selling was hard work

THAT was the third turning point in young Farrell's life, and the end of steel making, or the supervision of it, for several years. From that time on selling was his line. Perhaps other incidents had given Mr. Oliver a line on the selling ability of his superintendent, but at any rate Farrell never went back to superintend production.

Selling steel was just about as hard work in those days as making it. The hours were likely to be longer even than the twelve-hour shifts to which Farrell was accustomed. Trains were few, roads were dirt or mud and travel was by carriage or on foot. Hotels were far from what even the small towns afford today.

Young Farrell got some practical lessons in competition in this kind of work. One day he went up into New England to call on a manufacturer. On the train he met salesmen from three competitive mills all on the same errand. All four footed it out a couple of miles from the railroad station to the plant and tackled the prospective buyer together.

"Boys," said the buyer, "I'll tell you what I'll do. I know all your mills and

can use the steel from any of them. I'll give you each a slip of paper and you write down just what your price and delivery will be. Each one put his bid in my hat. Then I'll look 'em over and the one who makes the best bid gets the order."

They all agreed. When the bids were examined Farrell's was the highest and he lost the order. But he knew the cost of his product and his bid had covered that and a close profit for his concern. He was beaten by a lower price.

Sometime afterward, however, he learned from the man who got the order that his bid had been below cost and his mill had lost money on the business. The other bids had been below cost, and Farrell's had been the only sound one submitted.

The next year when Farrell went to call on that buyer he found none of his earlier competitors seeking the business and he got the order at the price he had bid before.

This kind of experience proved Farrell's quality as a salesman and before long he was in charge of the New York sales office, taking orders for Oliver steel and wire from all over the world.

Now his heritage of the sea began to tell. He understood foreign trade and its true relation to domestic occupation, and he put this understanding to good use for his employer. Time and again when the home market was slack, when other mills were running on part-time or shut down, the Oliver plant was busy filling the orders Farrell had obtained all around the globe. He had an agree-



He turned and looked down at the lad, then his hand went into his pocket and came out with a gold piece

ment with Mr. Oliver that his foreign orders should be cared for, no matter how the domestic market stood. It was soon made plain how that policy stood them in good stead when the domestic market was not taking its usual amount.

Established in the selling end of the business, and with his reputation growing, Mr. Farrell's next long step was not around another turning point, but in the same direction he had been traveling. The United States Steel Corporation was formed, and soon established the Steel Products Company to handle the foreign business of its subsidiaries. Seeking the best foreign salesman of steel, the Corporation chose Mr. Farrell president of the Products Company.

Experience in shipping

NOW he came back to the sea again, for as president of the Products Company it was part of his business to provide means of delivery for steel sold abroad. That meant ships. Here he was practically and widely in the shipping business, engaging freight space, allotting cargo, chartering vessels and managing their operation. Then, under his inspiration, the Corporation began to build its own ships and he managed, in effect, their voyaging.

So, when the Corporation wanted a president, early in 1911, it had in James A. Farrell a man who embraced in his own experience the three great fundamentals of production, merchandising and transportation.

But it is his avocations, rather than his vocation, that, to my mind, best illustrate and exhibit Mr. Farrell. There are at least three in which he is greatly interested—foreign trade, shipping and education.

I do not know the relative importance in which he regards them. His own experience in quitting school while only a boy has made him almost pathetically wistful about the benefits of school training. Yet he is one of the best educated men I know, and naturally, for all his life he has had the overmastering desire to learn that sprang from his early deprivation.

Mr. Farrell himself has put his own attitude toward scholastic training and, for that matter, toward several other important matters as well, in almost epigrammatic form. St. Bonaventure College conferred the degree of LL.D. on him not long ago. His response was brief, but four of its few sentences threw brilliant light on his own life. One dealt with the matter of educational training.

"The stern problems of today," he said, "require stern training, and do not

Now! *an added* DIAMOND *convenience*



DIAMOND MOTOR DRIVES

Ask for Drive Data Book No. 78

The Diamond Chain & Mfg. Co. now adds convenience of ordering and stock delivery to the many advantages that have placed Diamond Roller Chain Drives in 112 Major Divisions of American Industry.

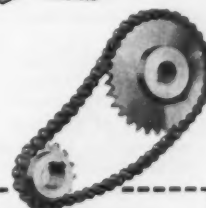
Now you can order any DIAMOND ROLLER CHAIN DRIVE from $\frac{1}{4}$ to 75 horse power, in ratios up to 8.4 to 1, in motor-speeds up to 1800 R. P. M. . . from the nearest Diamond distributor and get immediate delivery.

Complete and detailed specifications of Diamond Stock drives are given in the Stock-Drive Book just published. It is a simple matter to select the drive suitable for the application you have in mind—all the "figure work" has been done—you need only turn to the right page.

The book—your phone—(or a telegram) will make immediately available a drive to fit practically any need you may have. Send for *Drive Data Book No. 78* on Diamond Stock Drives. Use the coupon reminder.

DIAMOND CHAIN & MFG. CO.
417 Kentucky Avenue, Indianapolis, Ind.
Offices and Agents in Principal Cities

TRADE  MARK



Diamond Chain & Mfg. Co.
417 Kentucky Ave., Indianapolis, Ind.
Gentlemen:

Please send me a copy of the *Drive Data Book No. 78*; also address of your nearest distributor—without obligation.

Name _____

Business Name _____

Business Address _____

City _____ State _____

DIAMOND CHAIN

ROLLING AT POINTS OF CONTACT

When writing to DIAMOND CHAIN & MFG. CO. please mention Nation's Business

(A-392)



Page Fence

J. Wallace Page believed people want the same quality in the protection of property that they demand in food, clothing and the houses they live in. In 1883 he founded Page Fence, intelligently adapted to the conditions under which it is used. He sold service—durability—satisfaction. Page Fence carries on—and, because there is a real need for it, adds a new metal to a line of fencing already known as complete.

ALUMINUM

Once more

PAGE offers industry a Super-Fence—this time ALUMINUM

Now comes Page Fence of Alcoa ALUMINUM Wire to give a service unduplicated. For Page engineers have brought to chain link fence Alcoa ALUMINUM'S corrosion-resisting properties. This fence will give you the greatest protection at the lowest cost per year—an important economy.

Alcoa ALUMINUM offers high resistance to acids and moisture. Hence its popularity in the kitchen and in the industries. In Page Fence it remains indefinitely rustless, unstained, unweakened through long service, salt air, moisture, or any of the atmospheric conditions harmful to other metals.

You should investigate Page-Alcoa ALUMINUM Fence. We will be glad to send complete information. The nearest of 64 Page Service Plants at convenient locations throughout the country will advise you regarding cost, layout and type of fence and will superintend proper erection. Write today. Page Fence Association, 520 North Michigan Avenue, Dept. A93, Chicago, Illinois.



When writing please mention Nation's Business

admit of vocational short cuts." Complimenting St. Bonaventure upon the habit of hard work which it seeks to inculcate in its students Mr. Farrell said:

"St. Francis of Assisi taught the world by word and example that man should seek happiness through the labor of his hands."

In another sentence he gave both a glimpse of his own record and a rule of conduct immensely worth while to young men of today.

"It was in the steel mills of Pittsburgh," he said, "that I worked from early youth to maturity, and there I learned that application, perseverance and temperance eventually led to reward."

Then, with characteristic modesty, he gave point to that lesson by adding:

"Whatever I have accomplished can be attained by others, and many similarly situated can work their way from modest beginnings to commanding positions in life."

We were talking recently about the program for a meeting of the Iron and Steel Institute, and the highly technical and scientific character of the papers it includes. Something that was said recalled to Mr. Farrell the days when he worked in a steel mill, and they made good steel with far less scientific supervision than is had in all mills today. He walked over to the wall of his office where hangs an oil painting of a workman sitting before a furnace, with his cap on his head and a pipe in his mouth, gazing intently at the furnace flames.

A workman of great skill

"THAT'S Hughey Neill," said Mr. Farrell. "He's watching his furnace and he can tell from the color of the flames the chemical composition of the steel in there. Nowadays we have to have pyrometers and hygrometers and a lot of other 'ometers and all that. But in those days we used to tell the quality of the steel by watching the furnace flames. I used to work alongside of Hughey Neill. He's one of the best we ever had. He's still at it. He is a skilled workman."

"You used to work with him, and at the same kind of job?" I asked.

"Yes, a long time ago. He taught me a lot of things," Mr. Farrell replied. "He's four years older than I am."

"Well," said I, "how come that you are president of the Steel Corporation and he's still at the old job?"

Mr. Farrell looked quizzically at me. Then he smiled a little, and said:

"I'm not going to tell you."

He walked back to his desk and sat down. "I'm not going to try to give any recipe for success."

"You've given me one a number of times," I said. "It's only two words, 'hard work.'"

"Yes," he agreed, "hard work." He began rubbing the top of his desk with his right hand in a peculiar stirring motion, round and round, which is a thing of long habit with him.

"Hard work," he repeated, and then he added, "and temperance. Never leave that out for it is a great factor, often overlooked."

"That brings up another question," I went on. "It is practically a general rule that our successful men are hard workers. But why do they keep on working so hard after they achieve success?"

The recreation in work

"TAKE your own case for example. You work harder than any man I know. You almost never take a holiday, and when you do, you take a lot of work along with you and meet a lot more on the way. Why? Not for financial reasons, for long ago you reached the stage where that kind of worry ceased. Then why do you keep at it?"

"That is my recreation," he said, "that is a large part of the joy I get out of life. That's what all these men get, but"—he began picking up the papers from his desk, the sure sign that this kind of conversation had come to its end—"I'm not trying to give a recipe for success."

Then we both went to work on the business of the moment and that was about all of that brief minute or two of self-revelation. Almost, but not quite, for a few minutes later he suddenly interrupted the business talk to look up and say:

"And I have always saved something out of my salary. I never spent all I earned."

Work, temperance and thrift! What a "recipe for success" he had given.

The three avocations to which I have referred—shipping, education and foreign trade—are pursued by Mr. Farrell with a degree of intensity hardly distinguishable from that with which he follows his vocation. The difference, I should say, is largely in the amount of time devoted to each. On that score he makes it plain that steel is his business and the others are merely side lines.

Neither golf nor any other sport seems to have any place in the Farrell regimen. If he has any avocation of a sporting nature besides operating the *Tusitala* it is probably sailing a yacht

or driving a motor boat about the Sound, off his country place in Connecticut.

The exercise for 20 years of such authority over the actions of 300,000 men as Mr. Farrell has is bound to develop in any man a sense of tremendous power that is likely, at times, to make him seem arbitrary and hard.

I was walking along the street with Mr. Farrell one day in our early acquaintance when a ragged and battered little newsboy thrust a paper toward Mr. Farrell and called his wares. Without pausing or interrupting his conversation Mr. Farrell took a nickel from his pocket, gave it to the boy, grasped the paper and kept on, ignoring any question of penny change.

"Thank you, sir," said the boy.

Then Mr. Farrell turned and looked down at the lad, his hand went into his pocket and came out with a five-dollar gold piece.

"Here," he said, and handed it to the boy. Then he went on with his talk with me.

Republican or Democrat?

ONE thing I have discovered that Mr. Farrell will not talk about, at least with me. That is politics. The organization with which I am connected, and of which he is the chief, is as he says "non-partisan, nonpolitical, nongeographical and nongainful." I do not know the political affiliations of half a dozen of the members. One day I happened to see Mr. Farrell's name in the membership list of the Union League Club, which I understood confined membership to Republicans.

Sometime after that we traveled to Cleveland together and Mr. Farrell met an old friend on the train, who greeted him with boisterous enthusiasm. They had a long talk and then the friend stopped at my berth for a word or two. In the course of the chat he referred to Mr. Farrell as a Democrat.

"How come?" I said. "He's a member of the Union League Club and that takes only Republicans."

"I don't care anything about the Union League, or any other club," he retorted, "I tell you Jim's a Democrat."

Later I told Mr. Farrell of this talk with his friend.

"I supposed from your membership in the Union League that you were a Republican," I said, "but he said you were a Democrat."

"Did he?" he said.

As I have inferred, he is the originator of reticence where he himself is concerned.

How to provide a RETIREMENT INCOME for yourself

THIS new Retirement Income Plan makes it possible for you to retire at any age you wish, 55, 60, or 65. You may provide for yourself a monthly income of \$100, \$200, \$300, or more.

Suppose you decide to retire on an income of \$200 a month when you are 60. Here is what you get:

1. An income of \$200 a month, beginning at age 60 and lasting the rest of your life. You are assured a return of \$20,000, and perhaps much more, depending upon how long you live. If you prefer, you may have a cash settlement of \$27,000 at age 60 instead of the monthly income.
2. Upon your death from any natural cause before age 60, your wife or any other heir you name receives a cash payment of \$20,000. Or if preferred, your wife receives a monthly income for life.
3. Upon your death from accidental means before age 60, your wife or other heir receives a cash payment of \$40,000. Or if preferred, your wife receives a monthly income for life.
4. If serious illness or accident stops your earning power for a certain period, you will thereafter receive an income of \$200 a month during such disability, even if it lasts the rest of your life.

How much does it cost?

A Retirement Income is paid for in small installments of only a few dollars a month. The exact amount depends on (1) Your present age (2) The age at which you

wish to retire (3) The amount of monthly income you will want.

One of the great advantages of this Plan is that it goes into operation the minute you pay your first small installment. Even though you should become totally disabled, you would not need to worry. Your installments would be paid by us out of a special reserve fund.

Get this Free Book

The Phoenix Mutual Company is one of the oldest, most conservative institutions in this country. It was founded in 1851, and has assets of over 135 million dollars invested in bonds and first mortgages and other high-grade securities.

An interesting 28-page book called "How to Get the Things You Want" explains how you can provide a Retirement Income for yourself. No cost. No obligation. Send for your copy now.



Say good-bye to money worries forever



**PHOENIX MUTUAL
LIFE INSURANCE COMPANY**

Home Office: Hartford, Conn.

First Policy issued 1851



PHOENIX MUTUAL LIFE INSURANCE CO., 544 Elm St., Hartford, Conn.
Send me by mail, without obligation, your new book,
"HOW TO GET THE THINGS YOU WANT."

Name _____ Date of Birth _____

Business Address _____

Home Address _____

Copyright 1930, P. M. L. I. Co.

When writing to PHOENIX MUTUAL LIFE INSURANCE CO. please mention Nation's Business

He Took an Idea to Market

(Continued from page 33)

ity, the Callaway Corporation has never found it necessary to formulate or write down rules to govern its labor policy. You have to ask questions to get at them. The wage rate is maintained as nearly as possible at ten per cent higher than the prevailing scales in similar southern cotton mills. Mr. Callaway is quite casual about that. He agrees with Henry Ford about the economy of high wages. He regards them as a spur and a stimulus to good management.

"When the experimental laboratory has improved one of our products," he told me, "we take a great deal of pains explaining it and getting it into production. Then we advertise, and copies of what we have said about the product are posted in the mills and called to the attention of those who make the fabric and the articles. A copy of each advertisement, including the catalog, goes to each operative and frequently they come back and show us some good point we have overlooked, or how to develop some additional improvement. In a word, they are all working with us."

The Callaway community is a family community. Women and young people of legal working age are employed only for jobs that they can really do better than men or when the company feels they are entitled to employment, as in the case of widows and orphans of former employees. The wage policy for women is equal pay for equal work with men. In the earlier days the heads of families working in the mills sought jobs for their children in most instances as soon as the law allowed. But now there is a tendency to keep children in school as long as possible.

The fruits of diversification

OVERPRODUCTION has been an acute problem for the cotton industry as a whole since the World War, but in that time the Callaway group has expanded from nine to fourteen mills, units being operated in Milstead, Hogansville, and Manchester, Ga., and in Roanoke, Ala. Their products are so diversified that even in periods of seasonal or general industrial depression, most of them operated full time and it is possible so to shift the labor force as virtually to eliminate unemployment.

Diversification in one instance came about as the result of an accident, or a series of accidents, but there was no element of chance in what the organization did with it, nor in the development of other products. The Callaways have always kept a sharp watch on safety and their industrial accident rate is far below the average for the industry. But one day a foreman with certain accident prevention responsibilities took to the plant hospital a worker whose little finger had been badly torn. On the way back to the mill he began to remember a number of such accidents. Investigation revealed they all traced to the same cause, the use of cotton waste for cleaning moving machinery. A worker got his fingers tangled in the fibers and before he could free himself had lost or badly injured a digit.

A pioneer textile laboratory

THE experimental laboratory—it had been in operation for many years and is said to have been the first established in the southern textile industry—was put to work on this problem. It produced a wiping cloth made of the very same waste that did the work better and eliminated the danger. After these cloths had been used for some time an agent of a big motor company saw them, made a few observations and inquiries, and asked for a quotation.

Mr. Callaway sent out a surveying group to determine if a market existed. It called on 600 manufacturing plants. The result was so encouraging that the survey was enlarged to cover 10,000 plants. This revealed that no direct market existed because there were not enough concerns large enough to operate their own laundries for washing the cloths. The experimental laboratory had learned by this time that in the roughest kind of service the cloths could be washed from 20 to 40 times. The first cost was higher than waste, but the eventual saving started at 20 per cent and climbed in some instances above 70.

Many big concerns saw the light, put in their own laundries and placed orders for wiping cloths. But the potential volume of the little fellow was greater in the aggregate than the demand of big business. So Mr. Callaway organized or made arrangements with existing

laundries in large industrial centers and nearly a hundred are now operating on somewhat the same terms as the various towel and barber shop services. The sale of cloths this year will reach 50 million units.

All told, the Valley Waste Mill founded by Cason Callaway with a dollar and an idea, and the half dozen companies that have since been organized out of it, did a business of more than nine million dollars last year. One of them grades waste and sells it according to uniform specifications; makes mop ends, cotton batting and similar products. So much waste is needed that it has been necessary to expand the output of the original mills in heavy or long staple cotton products to assure a supply. So there is a line of men's breeches built to quality standards in addition to the original tire fabrics, ducks, and other products. There is also a line of laundry equipment.

The rug story repeats in the home what the wiping cloth did in the factory. Callaway Mills are the world's largest manufacturers of Chenille rugs. It was the first cotton rug to be vat dyed, the first to use an embossed pattern, and the first to be designed for use elsewhere than in the bathroom. Four years of market study and laboratory experiment were required to make this product, which is sold under binding guarantees.

Can't afford cheap labor

"IT ought to be obvious," Mr. Callaway remarked, swinging back to the educational theme after he had outlined the extraordinary pains taken to locate markets and to build quality products to suit them, "that we cannot continue to improve our merchandise unless our workmen also improve. We could not afford cheap labor even in the waste mills. Mechanical efficiency in the cotton industry is as high or higher than in any other, since it has been on a machine basis for a longer time. But even a machine that is completely automatic may be improved, by a man.

"We go at what my father called the making of citizens here as the first function of the business, with complete confidence that they will take care of its future. The only welfare program

If this typewriter saves
only 2% of your typists' time

*it pays
for
itself!*



Actual work tests show that it will save much more!

SUPPOSE you have 100 typewriters.* You pay each operator \$15 to \$20 a week. This amounts to an investment, over five years, of something like \$500,000 in typists' time.

If, in that time, your 100 L C Smiths speeded up the work of your 100 typists *only two per cent*, they would pay for themselves!

But, actually, they will do much better than that. Many firms have made comparative work tests and found that the smooth

ball-bearing action and the light touch of the L C Smith increase their typists' output by five, ten, or even fifteen per cent.

Almost any typist is a good typist at 9 a.m. But after she has pounded, and has been pounded by, an unkind typewriter for half a day, fatigue has lowered her efficiency.

The L C Smith is a good typewriter at 4 p.m. There are no pains between the shoulder blades for the fortunate typist who uses one!

*You may have only one, or you may have 500; the same thing applies.

L C SMITH & CORONA TYPEWRITERS INC

1835 New York Life Building . . . 51 Madison Avenue, New York City

When visiting an L. C. SMITH dealer please mention Nation's Business



Bearing the Names of Makers of History

In the romantic days of Crinoline, Lavender, and Old Lace, now nearly three-quarters of a century past, State papers, contracts, and various documents, public and private, many of them bearing the names of Makers of History, were preserved on

BYRON WESTON CO. LINEN RECORD

The condition of these records today has prompted the specification of this paper by those who desire permanence and economy.

There is no permanent paper quite so good.

BYRON WESTON CO. LINEN RECORD is used where **ONLY THE BEST** will serve
Records Deeds and Wills Policies Stationery
Minute Books Ledgers Maps

WAVERLY LEDGER is used where
QUALITY AND COST ARE FACTORS
Blank Books Ruled Forms Pass Books Drafts
Stationery Legal Blanks Diplomas

CENTENNIAL LEDGER is used
where a **GENERAL UTILITY PAPER** is required
Ruled Forms Broadsides Accounting Forms
Stationery Pass Books Legal Blanks

FLEXO LEDGER is used where a
FLAT LYING LOOSE LEAF sheet is desired
For High Grade Loose Leaf Ledger Sheets and
Special Ruled Forms

TYPACOUNT LEDGER is used where
quality and permanence are required in
Machine Posting Forms

**WESTON'S MACHINE POSTING
LEDGER**
a grade below Typacount—But Made to the
Same Exacting WESTON Standard

DEFIANCE BOND is used where a
quality bond of **HIGHEST CHARACTER** counts

Write for samples of Byron Weston Co. Linen
Record and other Weston papers.

BYRON WESTON COMPANY

A family of paper makers for nearly
three-quarters of a century

DALTON, MASS., U. S. A.

Leaders in Ledger Papers

we have is to help people to help themselves. We do one thing at a time and try not to undertake anything that we cannot finish. Profits are essential, but they are not the sole aim of this business. We assure them by dividing them with employees through wage increases and a regular system of profit sharing; and with the consumer through price reductions whenever that becomes possible.

"One trouble with the cotton industry as a whole is that only a small section of it is engaged in locating and developing new markets. That section is faring better and is expanding its business while the rest of the industry is complaining of overproduction. This condition not only brings unhappiness to the nonprogressive, but it also threatens the happiness of the progressives. In any number of instances specialized, efficient mills have located new outlets, after much expenditure and research, only to find so much of the old imitative battle for customers' competition that their discoveries were not worth the effort required to hold them.

"It stands to reason that if all the competing units in the industry were engaged in market research the number of new outlets discovered would be considerably increased. It follows also that the discoverer could reasonably expect a longer time in which to develop a new field. He would be getting in earlier—at the very beginning, as a matter of fact—and getting out later. Even the process of getting out might be expected to uncover newer and larger outlets, which has been the experience of our own mills. Our laundry textile business developed out of a small market for laundry baskets.

The pessimists' view ahead

"I AM aware that certain pessimistic observers of the whole American business panorama take another view of the future. Their theory is that the power of the people to consume is definitely predictable, that it is a knowable, if not a known quantity, which cannot be increased. If that is true, it follows as a matter of mathematics that the efficiency of group individual efforts by all industries for a share of the consumer's dollar must decrease in the same ratio as the increase of energy expended. Their doctrine is that of saturation, of fixed quantities. But it seems to me that if we are to adopt such a theory we must also assume a constant of population, of living conditions, products, quality, prices and wage rates.

"When all these factors are subject to continuous and increasingly rapid change, as they have been in this country and to a lesser extent in others for the past century, it seems to me that the problem of industry as a whole is likely to be how to make enough of everything people will want, instead of how to avoid saturation or overproduction. Organized group action by the cotton industry, leading to a higher average efficiency of its units, may be expected to stimulate competitive textile industries to similar action; and the whole market for textiles may be expected to increase. With wages going up, costs and prices going down, and human wants increasing, the final struggle is so far away that, in my opinion, it is purely imaginary."

Sees new cotton needs arising

MR. CALLAWAY is not in sympathy with the idea that motor cars and radios compete with cotton in the sense of limiting its market—the theory that people have less to spend for clothing after buying automobiles. They may have less need for clothing in closed cars, he says, but they will have other cotton needs not known before. He does not think it is the function of the consumer to be articulate about these needs.

"The manufacturer must discover them, tell the consumer about them, and then make it convenient for him to acquire them. The only real competition today lies in the search for new consumer uses, and in my opinion this is endless so long as we have movement and ambition and change," he says.

"If the cotton industry had kept pace with a group of other relatively old industries," Mr. Callaway added, "in the years from 1914 to 1925, its volume would have been higher by more than half a billion dollars. The total increase in value of cotton products in that period was 159 per cent. But in the same time paper and wood pulp increased 192 per cent; iron and steel 200 per cent; silk 218 per cent, and rubber 317 per cent. It is evident that each of these industries has done a great deal more than the cotton industry toward finding out what people want, letting them know they want it, and making it convenient for them to buy it. Even more has been done by the newer industries which had not the tradition of being basic, and which, therefore, did not take consumer demand for granted. Their increases have been even larger.

"It has been said, and it has not been denied, that when the efficient units of

the cotton industry ask for group action comparable to that taken by other industries, they are actuated by self-interest. That has been true of all co-operative campaigns. It is also true that these campaigns are always launched by those units which have been in least immediate need for the return they may be expected to yield—in other words, the profit makers. But it is no longer true that by such action the leaders hope to increase their domination.

"They may do a larger business and make more profits, but the history of all industrial growth shows that in the long run their percentage control may be expected to decrease.

"What this comes down to is that the opportunities are comparatively greater for the stationary than for the leaders in all industries. The leaders cannot continue to expand until the others close the gap between them. The requirements of business have been completely reversed—or rather the conception of these requirements. Under the old system, domination was the aim, and the man who had it sought to maintain it by putting his competitors out of business. But under the present system he is actually driven to encourage them. He stands willing and eager to contribute his fair share to a cooperative effort, even though it be a natural conclusion that the return to his competitors will be larger than his own yield."

Young Ford's Watch

HENRY FORD, in establishing his shop school for boys compelled to interrupt their educations in order to contribute to their families' support, probably remembered his own boyish interest in machinery.

As a lad he was given a watch by his father. After proudly wearing it for a few months, his desire to "see what made it go" got the better of him and he took it to pieces. Then came the job of reassembling it so it would run. He failed again and again.

For weeks he studied the various wheels, springs and screws, experimenting with them in every possible stage of progress toward the completed watch. At last he succeeded. The watch ran and kept perfect time! It was the beginning of his career with machinery. At 17 he was a skilled mechanic, with a night job in a jewelry shop repairing watches.

—J. H.



THIS MACHINE CUTS YOUR BUSINESS COSTS BY SIMPLIFYING DETAIL

The human mind, however capable, is an unsafe, unreliable repository for the detailed records of your business transactions. Written records—clear, complete, accurate—are a vital necessity.

The EgrY Com-Pak Register enables you to keep finger-tip record control over Purchasing, Receiving, Storing, Production, Sales and Shipping Operations, also Inventories and every phase of departmental business activity. There are EgrY Systems specially designed for your particular line of business. May we send you full details, without cost or obligation?

THE
EGRY

REGISTER COMPANY
DAYTON, OHIO



MAIL THIS COUPON TODAY

I am interested in speeding up routine and cutting costs. Tell me, without any obligation, how an EgrY System will aid my business.

Name.....

Address.....

Business.....

When writing to THE EGRY REGISTER COMPANY please mention Nation's Business

New York Is a Farming State

(Continued from page 39)

enthusiasm. One chronicler of the time sets down with much satisfaction how "in every community the most prominent citizens vie with each other for the honor of having a share in the work." In any case its construction is a splendid testimonial to the vision and faith and practical courage of the men of New York a century ago.

"The Grand Erie Canal" was opened in October, 1825. For a full week from Buffalo to New York there were banqueting and speech making and the booming of big guns and the burning of tar barrels on the top of Liberty Poles.

Moreover the Canal amply justified its brave beginning. From its opening it paid. Very soon the lock west of Schenectady performed 30,000 lockages in a single season. Thereafter followed more than a half century of palmy, golden years. Until the Canal was built, it had been a question if the seat of empire in America should go to Philadelphia or Baltimore or some more southern port but that issue was never in doubt once the Erie began to pour its traffic into the lap of New York.

Traffic flowed day and night

IN its palmy days, the traffic ceased not day or night. At the locks, dim, smoky lamps made a red flare in the darkness and the night rang with the shouts and curses of the "captains" contending for their place in the waiting line of boats. Canal traffic reached a "high for all time" in 1880. That year the Erie delivered to the river at Albany some three and a quarter million tons of freight.

Moreover the Canal had a most important influence on New York agriculture. In 1825, Buffalo was a raw frontier village of some 5,000 souls.

Western New York was admittedly the largest body of high-class land east of the Alleghenies, but it lay so far from market that it was greatly handicapped. The opening of the Canal brought to the western New York farmer the most advanced transportation system in the world and with it a prosperity that lingered for many years. All over those Finger Lake Counties you will find big, imposing farmhouses. They were the fine mansions of their time and almost invariably you will find that they were

erected near the middle of the past century when western New York believed itself to be the most famed farm country in America—as it probably was.

New York first counted her farm acres and her agricultural production in 1845. At that date we had almost as many cattle as today and we had 11 times as many sheep. We had a number of crops then important that have absolutely disappeared from the State. For example, the census enumerator found 46,000 acres of flax, because there was a little field of flax on every well-ordered farm just as there was a wool spinning wheel and a flax wheel in every farm kitchen.

How crops have changed

WE had that year 217,000 acres of field peas grown for grain. Except in mixture with oats and barley, I am unable to find that there is a single bushel of this grain in our State today. We had 15,000 acres of turnips grown to feed our six and one-half million sheep. We then produced some 14 million bushels of wheat or just about enough to provide bread for the 2,600,000 people who then made up the State. We now produce hardly five million bushels and our 11 million inhabitants will eat it up in a month.

At that date the State's beef production was an important factor in our agriculture. Today our steer feeders can be counted on one's fingers.

We do, however, have two or three counties where the purchase and fattening of western range lambs has become an important and intensive industry. It is true that in the growing vastness of the industrial life of the State we are likely to forget our agriculture, but please note that we are still much in the business of farming. Among our 48 states New York stands twenty-ninth in total acreage, twentieth in the area of land in farms and third in the total value of farm crops—this for 1925, the latest figures available.

New York has within her bounds one-tenth of our total population and one-fortieth of all our farmers.

At a period when it is widely proclaimed that farmers are on the road to universal insolvency, one-half our farms are free from mortgage debt and 79 per cent are operated by their owners.

In a day when we talk much about the failure of the "melting pot" and the submergence of our rural American culture by an alien flood, it is good to remember that 86 per cent of our New York State farmers are native born.

Perhaps the most noteworthy fact regarding New York agriculture is its exceedingly wide diversification and the number of products in which the State holds either first place or stands near the top. We are first in a large number of minor crops—cabbage, currants, carrots and sweet corn, teasles for the woolen mills and willows for the basket factories—also we are first in such major crops as potatoes and hay.

We are second in the production of a list of crops so long that there is not room here even to name them but it includes apples and the tremendously important item of dairy products.

Now while we grow such a wonderful variety of crops, the one great outstanding product is, after all, market milk. At the mouth of the Hudson is a group of cities that, taken together (the Metropolitan District), constitutes the greatest milk market in the world. This market consumes a flood of milk so vast that it can best be visualized and comprehended in terms of daily rather than yearly production. The average daily receipts in this market range around 95,000 forty-quart cans. The standard carload of milk is 250 cans or 10,000 quarts. There are then almost 500 full carloads a day. Of this vast flood of milk, almost exactly 80 per cent originates in New York State. Yet that 80 per cent which goes to the Metropolitan District is only a fraction of the State's total milk production.

A monster dairy parade

PERHAPS the run of folks will better appreciate this business of dairying in New York State if we should muster all the cows of the State for a monster live-stock parade.

The procession had better form at Buffalo so that it will have room to string out when it gets started. To save trouble we will leave the bulls and calves and heifers under two years of age at home. Only the dairy matrons will have places in line. When gathered together and tallied there appear to be about 1,400,000, a number easier to

pronounce than to visualize. So they fall in line—four abreast, close marching order, eight feet to a cow.

So the van marches down through the central cities of the State and reaches Albany and turns south along the river, and when it reaches the Grand Central Terminal, there still remains in Buffalo some 90 miles of procession that has not yet found a place to fall in. The vanguard will be well out in the sunrise country of Long Island, beyond Riverhead, before the rear pulls out of the city by the lake.

And bear in mind that "down on the farm" are more than half a million young things—more than a hundred miles of procession that has not even been invited to be present.

Now naturally to feed all these cows calls for some hay, and New York State is the place that can provide this indispensable requisite. One year with another we grow an average of some seven million tons of hay.

No other state grows as much and indeed Nebraska, Minnesota and Wisconsin are the only other states that can be classed as "among those present."

The garden of the world

OUR New York State College of Agriculture at Ithaca had once a wonderful and inspiring teacher of boys, Isaac Phelps Roberts. In his young manhood, as did so many other New York boys, he "went west" to Iowa. In middle life he came back to his native state and for 30 years—1874 to 1904—he taught general agriculture to successive classes of boys who were studying to be farmers.

In his agricultural teaching he was necessarily largely a self-taught pioneer. Perhaps it is true that he never really mastered the severe vocabulary of science but he was a singularly wise farmer, a delightfully whimsical philosopher and a man whom college boys followed and loved.

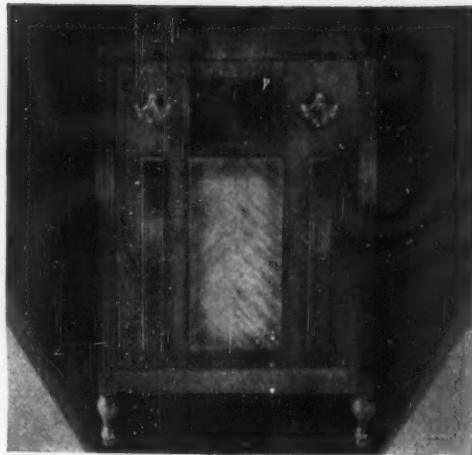
To the end he was frankly a militant patriot in behalf of his native state. Across very nearly 40 years, I hear him telling his "boys" the glories of his state. This was his counsel:

"Boys, have faith in New York. No other state produces so great a variety of products in commercial quantities and puts them in the markets of the world as does this State. New York is the garden of the world and she always will be."

It was no idle boast.

a new device that does far more than HUMIDIFY

● Discharging moisture into heated air is not enough. This only partially solves the problem of correcting winter humidity conditions. There must be some means of controlling humidity—accurately, positively; of washing air free from impurities; of providing diffusion of moisture; of forcing circulation throughout the house. Anything less than this is a compromise—does only half the job.



THE HUMITROL

The patented Lewis Humitrol looks like a thermostat—acts like one. You set the Humitrol for the relative humidity you wish to maintain—it automatically governs the operation of the Lewis Air Conditioner. Humidity control is placed at your finger tips as completely as is control of your temperature. This means health, comfort—it also means lower fuel bills.

DEALERS WANTED

The field for air conditioning offers great possibilities. Live dealers will investigate the Lewis—no other device offers complete, controlled conditioning of heated air.

● Lewis Air Conditioners bring to you for the first time complete and controlled air conditioning for the heating season. Humidity is produced in a vaporous, gaseous form giving rapid and complete diffusion. Recirculation of air is provided. All air is washed in the humidifying section. And most important, relative humidity throughout the house is regulated as accurately as temperature. Here, indeed, is the answer to your question, "How shall I keep my house comfortable and healthful?" Furthermore, the investment is moderate. Units are available in attractive cabinet or concealed models, or for basement installation. Full information on request. Lewis Corporation, 821 Second Ave. So., Minneapolis, Minn.

LEWIS AUTOMATICALLY CONTROLLED AIR CONDITIONERS

Start the
interview Right
with a

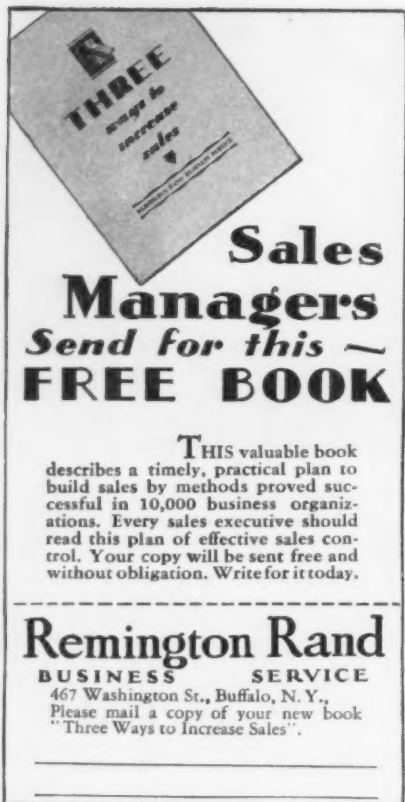
*Genuine Engraved
Business Card*

This Mark of Genuine
Engraving guards against
disappointing imitations



Watch for it when
you select Announcements,
Cards or Stationery

ENGRAVED STATIONERY MANUFACTURERS ASSOCIATION



THREE
ways to
increase
sales

**Sales
Managers
Send for this —
FREE BOOK**

THIS valuable book describes a timely, practical plan to build sales by methods proved successful in 10,000 business organizations. Every sales executive should read this plan of effective sales control. Your copy will be sent free and without obligation. Write for it today.

Remington Rand
BUSINESS SERVICE
467 Washington St., Buffalo, N. Y.
Please mail a copy of your new book "Three Ways to Increase Sales".



50¢
QUALITY

LISTERINE
Shaving Cream

NOW **25¢**

A big hit at 50¢; now you pay only half as much for this famous luxury shaving cream.

—TELEPHONE—

WITHOUT BEING OVERHEARD
Wonderful Sanitary "Whisper-It-Mouth-piece" enables phoning in low tones—Secret conversation—Every advantage of booth. Sanitary, made of glass—Instantly adjusted. Your Station—Crs or postpaid \$1.00. Money Back Guarantee.
THE COLYTT LABORATORIES
565 West Washington St., Chicago

AN INDEX of Nation's Business articles for your files will be mailed on request.

Why Add to the Federal Power?

(Continued from page 27)

the state commissions if the Federal Government establishes the kind of a commission you propose? How do you propose to avoid conflict between your proposed federal commission and the state authority? How do you plan to allocate jurisdiction? Isn't it possible that there will be considerable opposition by the states to surrendering further powers to the Federal Government?

SENATOR COUZENS: We do not propose to interfere with the state commissions in any manner. The state commissions now have complete authority to regulate intrastate commerce, and we do not propose to invade that field. The legislation offered is designed only to reach that field of interstate commerce where the states have no authority.

The proposed legislation sets up joint boards as federal agents, so as to bring the regulatory authority as near to the point of operation as possible. There is no cause for conflict between the Federal Government and the state governments, because the Federal Government will confine its operations to interstate problems, and all intrastate problems will be left to the states.

MR. SMITH: How does this proposed legislation affect the existing Radio Commission? Do you propose to enlarge its powers or would the Commission be separate and independent in its operations?

SENATOR COUZENS: The legislation to create a Commission on Communications would result in the abolition of the existing Radio Commission. The resultant Commission on Communications would assume the present tasks of the Radio Commission and, in addition, would be given authority to regulate the interstate transmission of communications by wire. This authority, now vested in the Interstate Commerce Commission, would be transferred.

To control utility earnings

MR. SMITH: Is this an arrangement to control the earnings of the communications and power companies?

SENATOR COUZENS: Any regulation of this character looks to such control of utilities as will insure service at fair and reasonable rates. It is not proposed to have this applied to broadcasting, because as yet broadcasting companies do not hold themselves out as public utili-

ties. The time does not appear to have arrived when broadcasting companies could be so designated. Therefore, no attempt is being made to control earnings or rates or service of broadcasters.

MR. SMITH: What argument is there for preserving the competitive aspects of international communications and at the same time permitting the practical monopoly that exists in the domestic telephone situation?

Encouraging competition

SENATOR COUZENS: The first answer repeatedly given before our Committee was that fair rates and service to the public could be insured through only one of two methods, competition or regulation. Immediately the question arises as to how this country can regulate and control rates or service internationally. It was contended that the only protection the public could have was through competition.

On the other hand, a domestic communications company can be regulated and controlled by the states, where the business is intrastate, and by the Federal Government where the business is interstate.

MR. SMITH: The bill seems to outlaw any company violating antitrust laws and yet doesn't monopoly justify itself under certain conditions? Please explain this feature of your bill.

SENATOR COUZENS: The existing radio law provides that there shall be no merger of wire and wireless communications facilities where the effect would be materially to lessen competition. Behind that clause in existing law were two causes, at least.

One cause was the agreement that radio was a new art and that it should be encouraged and permitted to develop without restraint. Unless it was protected, it was contended, there was danger that wire communications companies would get control of radio and endeavor to protect their investments in wire company properties by hampering the utilization and development of the radio.

Another cause was that radio-communications companies were associated intimately with the manufacturing companies. A monopoly here might prove dangerous. For example, suppose that in the first days of transportation by railroads, one road had obtained all the

controlling patent rights on the steam engine and then was permitted to manufacture only for itself. The result would have been an absolute monopoly in transportation and in manufacture and it is doubtful that our railroads would have developed as they have. Those interested in radio desire to insure the utmost freedom for its development.

In practically every form of public-service companies or public utilities, a monopoly is compatible with public interest where it is possible to insure absolute protection of the public through regulation and control. However, where one form of utility is confronted by an entirely new form of utility, it is essential to see that the new utility is given every opportunity to develop.

MR. SMITH: If federal regulation of the profits and operations of power and communication companies is a good thing, why not extend it to such institutions as the Ford Motor Company and industry generally?

SENATOR COUZENS: Power and communication companies are in practically all cases monopolies. To protect the public interest it is, therefore, essential that they be regulated or that they be owned and operated by the Government.

Previously I have dealt with this subject by pointing out that the public seems to have adopted the policy of regulation in preference to government ownership and operation. Then again, power and communication companies are regulated by the states, but no regulation exists in their interstate business.

The Ford Motor Company and all similar industries are assumed to be in competition, and are not monopolistic in their activities, or if they are, they are supposed to be brought under the operation of the national antitrust laws. The difference between the two kinds of industry seems to me apparent.

Rockefeller's Start

JOHN D. ROCKEFELLER earned his first money when he was seven years old by raising turkeys. He fed them with milk curds which his mother gave him.

The boy kept tab on his earnings from the turkey business, inscribing the figures in a little book which he later called "Ledger A."

That first evidence of the oil king's financial genius is still in the family archives, and sometimes it is displayed to intimate friends.—JAMES HAY, JR.

"Slipper Feet"

Tired, draggy feet that make you long for the old slippers . . . that's "slipper feet." Get rid of them . . . wear the Arch Preserver Shoe. Patented features give natural support . . . remove cause of bodily fatigue. This is the original and only ARCH PRESERVER shoe, never successfully duplicated. Custom styles, \$12.50 up. Red Label styles, \$10.00 up.



Wright
ARCH PRESERVER SHOE
FOR MEN

E. T. WRIGHT & CO., Inc.
Rockland, Mass.

Made in Canada by Scott & McHale,
Ltd., Licensee, London, Ont.

Made for women, misses and children by only The Selby Shoe Company, Portsmouth, Ohio

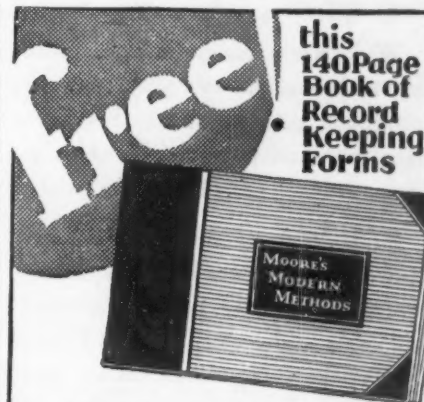
Discovered!

A NEW WAY
TO USE
USED CARS

See article on
the used car
problem in the

November

Nation's Business



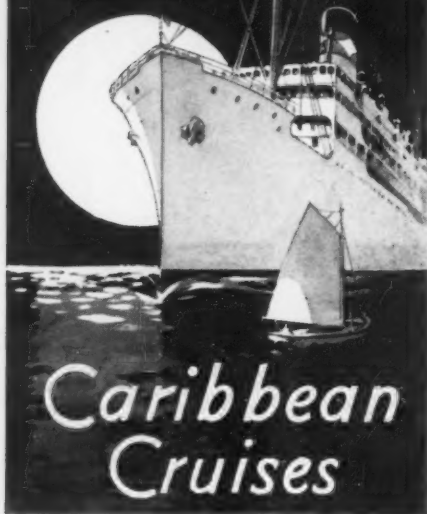
HERE'S a book that will help you with your record-keeping problems. Contains wide variety of life-size Bookkeeping forms completely filled in, illustrating uses. For office or factory—business or profession—It shows you simplest and most efficient methods of accounting now being used by 300,000 leading firms. Book sent FREE when requested on business stationery. No obligation!

JOHN C. MOORE CORP., Est. 1839
6087 Stone Street, Rochester, N. Y.

Merely Fill in Coupon and 140-page Book
Will be Sent you FREE

Name _____
Business _____
City _____ State _____

GREAT WHITE FLEET



Ships and men of the Great White Fleet know their tropics... a matter of prime importance to the traveler in the Caribbean. It means cruises planned by experience, and ships specifically designed for the traveling guest's every comfort. » » » »

Wide decks for games, promenading, and luxurious lounging... outside staterooms open to the sea breeze... excellent food prepared by chefs experienced in the art of tempting palates.

Great White Fleet Ships sail from New York twice weekly, New Orleans three times weekly. Cuba... Panama... Colombia... Jamaica... Costa Rica... Guatemala... Honduras. Cruises 16 to 24 days, all expenses included. All first class cabins. Full details from

Passenger Traffic Department
UNITED FRUIT COMPANY
Steamship Service
Room 1635, 17 Battery Place, New York City

CRUISES
\$225^{and}
up

Cheap Silver Means Reduced Buying Power

(Continued from page 23)

methods of saving. It must not be of too great value or it will be beyond their reach. The new currency scheme in India, with gold as a basis, does not suit them at all. The attempt to demonetize silver hurts.

They do not like the paper money though its value is based on gold. They cannot visualize it as treasure and it is not adapted to their sort of hoarding even if they could.

No hoarding of gold

THE British have taken steps to prevent the natives from hoarding gold and thus draining empire vaults. Indian currency is redeemable in gold but only in large amounts. If one has \$8,000 in paper money he can go to the bank and get its equivalent in gold. But not many Indians are likely to accumulate as much as \$8,000.

China, upset by war, clings to silver. She has nothing else. The buying power of her millions of people declines as it goes down.

I suggest the advisability of considering the reestablishment of silver in the money schemes of nations that it may take care of such situations as exist in China and India, of subsidiary coins for other nations, and at the same time widen the foundation on which money systems are based and thus increase their firmness.

This might be accomplished by the remonetization of silver on a basis which fits the setup of today and which, I may say, should be considered without prejudice attaching it to monetary doctrines of the past.

A stable price for silver

SILVER might be given a stable value with relation to gold, based on modern needs. For purposes of discussion let us consider a hypothetical possible course of action.

Suppose that the nations, by agreement, should set a price of 60 cents an ounce on silver. Instead of the old 16 to one this would be on a basis of about 34 to one. It should be borne in mind that they long ago established an arbitrary value of \$20.67 an ounce for gold and have successfully maintained this value.

Whoever has gold, the nations say, may bring it to the treasury and get



In these days of "STORE-DOOR" DELIVERY

IT IS fortunate that the Furniture industry has mechanized itself so completely, now that branch plants are essential in each major market. For in the old handicraft days the task of training branch-plant help would have forbidden the development.

But today a skeleton crew and the necessary machinery can be set down in any favorable location—and put to work with a minimum of delay.

The problem has resolved itself into a search for the best location in each market area.

In the South, Georgia offers the strategic location from which to serve the trade best, and at which to produce most economically. Georgia labor is intelligent, willing, and inherently skillful. Its quality is an aid to success for any industry. Other factors are equally helpful—low taxes, cheap fuels, low-cost buildings and many more swelling the total.

But above all, Georgia offers great reserves of timber—and a reforestation rate which assures constant supply. It is this factor, plus the urgent importance of producing close to the market, which is building furniture plants here.

Similarly, Georgia offers opportunity for profits to many other industries, and executives in all fields may secure detailed and unprejudiced data by writing the Industrial Department, Georgia Power Company, either at the New York office, care The Commonwealth & Southern Corporation, 20 Pine Street, or direct to the home office, Electric building, Atlanta, Ga.

GEORGIA
POWER COMPANY

Industry Prospers In Georgia

\$20.67 an ounce for it. This as a consequence is maintained as the world price of gold.

In the same way a world fiat value of 60 cents an ounce might be established and maintained for silver. On this basis the actual value of a silver dollar would be less than 30 cents.

The silver would flow into the treasuries of nations of the world. They would issue paper money for its purchase, thus avoiding any burden on the taxpayers, just as they accumulate gold at no cost at all.

Silver would take its place in all countries as an additional circulating medium and its stabilized value would greatly promote international trade. An industry would be put on a firm foundation, those currency requirements peculiar to silver would be met, and those losses due to its debasement would be avoided.

Mining processes are costly

THE world production of silver is not overwhelmingly great. It runs along about 250 million ounces a year. Mining it is a sterner task than is the case with gold, requiring machinery and heavy investment to wrest it from its rock em-battlements.

The Spanish say "it takes a gold mine to run a silver mine."

Putting a price of 60 cents an ounce on silver would not unduly increase its output.

The average price of silver through the ages has been more than 60 cents and did not call forth large production of the metal.

The world has produced 14 billion ounces of it while it was turning out one billion ounces of gold. Its production has been on a 14 to one basis or less.

Oriental would get the bulk

OF the annual production of 250 million ounces, possibly 200 million ounces, worth 120 million dollars, would be presented to the treasuries of nations for purchase.

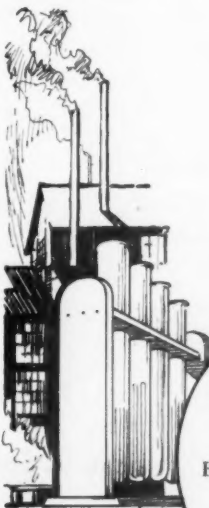
If we may judge by the past, 70 per cent of this silver would forthwith flow to the Orient. The accumulations in the vaults of nations would not be great. That metal which did accumulate would have an intrinsic world value and would, therefore, lend stability to the currency guarantees of nations.

Whether or not this hypothetical possibility might be made an actuality, beneficial to the world, it seems to me, is a question worthy of study.



These Circles tell a Magic Story

- A—Center of Population of the United States
- B—Corn Center of the United States
- C—Oats Center of the United States
- D—Wheat Center of the United States
- E—Geographical Center of the United States
- F—Cattle Center of the United States
- G—Center of Farm Production of the United States
- H—Lead and Zinc Center of the United States
- I—Cotton Center of the United States



Address
Department C-4

St. Louis

National Center of Centers
Encircled by primary resources
Unlimited Chemical and
Manufacturing Possi-
bilities

*The Industrial Bureau of the
Industrial Club of St. Louis*

ONE naturally thinks of chemical industry as concerned with minerals and their treatment. Yet science goes much further today. Chemistry is utilizing every sort of raw material for new and better products.

Consider the lowly corn-cob. Until quite recently it had little use, except as fuel. Today it gives us "furfural", that strange, dynamic compound with a hundred uses. Some chemists turn it into high explosives. Others make from it the lacquer that coats our motor cars.

The corn center of all the nation is but a short distance from St. Louis. So, too, among other vital production centers, is the cotton center of America. Mark how, from one-time worthless cotton "linters", chemists have lately woven the romance of Rayon—the new silk-like fabric that all the world was seeking.

A nearby circle spots the wheat center of the country, another the oats center,—each with their vast possibilities in processed foods. Still others mark the cattle center, the lead and zinc centers, and the center of farm production. Just eastward is the national center of population.

What a strategic location for industry is this! Here, where such a wealth of resources and advantages augment the untold mineral treasures awaiting development!

We Pay a Visit to Busy Baltimore

(Continued from page 52)

warehouse adjoins the pier and wharves and is connected by overhead galleries. Three traveling bridge cranes offer a capacity of ten tons each for heavy lifts.

Electric elevators capable of accommodating ten tons facilitate the handling of shipments which, when we called, included rice from Louisiana, canned goods and paper from the Pacific Coast, tobacco from the Philippines, wood pulp from Belgium and Scandinavia, lumber, wool grease and clay from European countries, and rags from Germany and Belgium, the latter to be used in the manufacture of linoleum.

All these things we observed while touring the pier on a private train of trucks hauled by an electric tractor.

The Western Maryland Terminal is on the Middle Branch Channel, now 35 feet deep and 400 feet wide.

Proceeding down the southern side of the harbor, the visitor finds all manner of maritime activity, the Union Shipbuilding Company, engaged in building and repairing vessels; the Mexican Petroleum Corporation and other oil companies, which conduct an oil refinery and pier in Curtis Bay; and the Baltimore and Ohio Railway again, this time represented by coal

piers and a merchandise house.

The Curtis Bay Channel is now 35 feet deep and 250 feet wide, but plans call for an increase in width to 400 feet.

Ship building and plane building

PASSING Leading Point, one comes to Thom's Cove and Quarantine and then cuts across the channel to Sparrows Point where the Bethlehem Steel Company operates coal and ore docks and a shipping pier, and the Bethlehem Shipbuilding Corporation has another enormous establishment. The main ship channel will be dredged to a 37-foot depth up to Sparrows Point, under recent government authorization. Beyond Sparrows Point, on Middle River, is the enormous tract obtained by the Glenn Martin Company for a modern airport and manufacturing plant. Here all forms of aeronautical activity are now carried on convenient to and linked with other forms of transportation, as is proper.

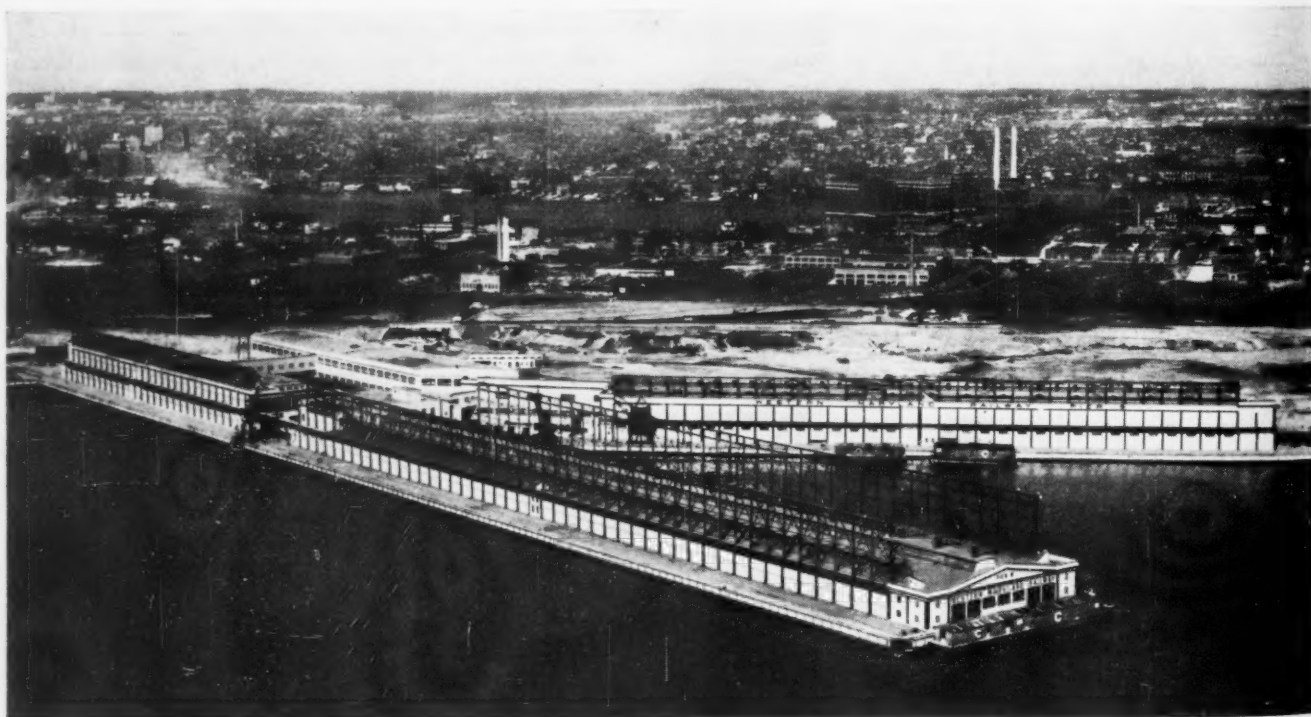
Beyond and nearer to Baltimore is the site of the Western Electric Company plant, brought to Baltimore by a triumph of community cooperation.

And so the visitor returns up the channel, passing the River View Anchorage, a natural one, three miles long and 3,000

feet wide. The War Department has approved plans to excavate a section of this, 4,500 feet long by 1,500 feet wide, to a depth of 35 feet. The entire new government port improvement program for Baltimore totals \$2,800,000, approved in the recent Rivers and Harbors Bill.

Arriving then at the entrance to the Northwest Branch, the visitor finds the large marine terminals of the Pennsylvania Railroad and the Canton Company and the Cottman Company's pier, with its cranes for the handling of ores and other bulk commodities; passes vessels of many nations resting in anchorages excavated in the inner harbor, and returns to the municipal pier.

If he is a shipping man, he has probably learned many things to his advantage; if he is merely an inquisitive landlubber he has seen some things that surprised him and he carries away a clearer idea of the many ramifications of the shipping business. If he is inclined to point morals he might suggest that Baltimore, although blessed with a natural harbor, has not accepted the gift and let it go at that. It has expended a lot of community effort and many community dollars improving on Nature. And that investment is paying dividends.



The Western Maryland Railroad Terminal will, when completed, represent one of the most modern on the American seaboard. This first unit, shown here, cost \$8,500,000 to build



Photo by Underwood & Underwood

Like The Slow-Motion Picture

WILSON-JONES RECORDS Analyze the Action of Business

BUSINESS heads responsible for the policies upon which future profits depend, must arrive at their decisions through facts as shown in Records. Wilson-Jones records and record-keeping devices are un-failing in their service for this purpose. Like slow motion pictures they analyze the fast moving action of any business.

For thirty years we have been designing and manufacturing the forms and devices upon which every type of industry, large or small, has kept its business history. Cooperating with expert accountants, and business advisers, we have provided the record-keeping systems for many of the greatest businesses in the country.

Wilson-Jones records and binders are carried in stock by stationers everywhere. Your own dealer can undoubtedly provide just the right Wilson-



Jones forms to meet your own record-keeping needs—forms that show you, with speed and accuracy, a clear, concise picture of your business.

WILSON-JONES COMPANY
NEW YORK CHICAGO KANSAS CITY

Wilson-Jones' records are always abreast of the demands of business. It costs you nothing to have Wilson-Jones' records and their action explained and demonstrated. Your own stationer will be glad to show you the stock forms which meet your requirements, or we will gladly cooperate with him in designing special devices to meet particular needs. The coupon will bring you any further information you may desire.

WILSON-JONES CO.
3300 Franklin Blvd., Chicago, Illinois

NB-10-30

Please send complete information concerning the action and utility of your record forms and record-keeping systems—also your service in designing special equipment for individual needs.

Name _____

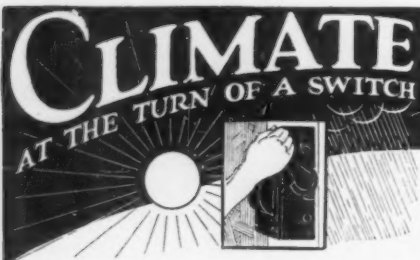
Address _____

City _____ State _____

My Stationer is _____

SERVING BUSINESS THROUGH PROGRESSIVE STATIONERS

When writing to WILSON-JONES Co. please mention Nation's Business

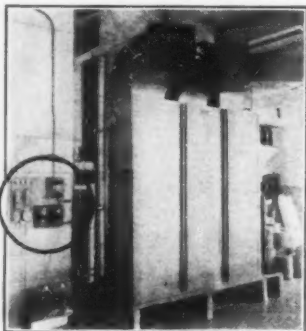


YOU can provide your factory, office, sales room, any kind of room or building with the right kind of indoor climate just as easily as you can light it with electricity or heat it with steam.

The Niagara Air Conditioner is a complete climate machine. It automatically warms or cools, moistens or dries and cleans the air in any room, maintaining both temperature and relative humidity just as desired.

Used for human comfort, air conditioning creates customers for any kind of business that serves the public. It will make you and your employees more effective to do your work under ideal conditions.

There are thousands of industrial uses for air conditioning in making, storing or handling any material that is sensitive to undue heat, cold or moisture in the air or change in atmospheric conditions.



The Niagara Air Conditioner shown, one of six sizes, furnishes the correct climate for a manufacturer of paper products.

Niagara Blower engineers are experts in the problems of humidification, dehumidification, drying, recovery of solvents, handling materials by air, heating or ventilating.

If you have such a problem in your business, write the Niagara Blower Company, 95 Liberty Street, New York City. Branches and Sales Representatives in principal cities.



AIR ENGINEERING EQUIPMENT

Niagara Air Conditioners, Fan Heaters,
Fan Coolers, Niagara Aluminum
Heating Coils, and Cooling Coils

When writing please mention Nation's Business

Dulling the Axe of Dismissal

(Continued from page 49)

an effective accelerator for the conscience.

Companies with reputations for ruthlessness in casting workers adrift are rapidly incurring public disfavor; and public disfavor is a distinct liability. It is not too much to say that the method of dealing with employees in times of shut-down or reduction of force is one of the standards by which management is judged, and that this standard will carry increasing weight in the next few years.

Not only outside public opinion but the sentiment of employees within the organization is powerfully influenced by the management's attitude toward men whose services are no longer needed. It may fairly be expected, therefore, that a liberal policy in this respect will be reflected in heightened morale and improved efficiency.

Overhead on men and machine

MOREOVER, the lay-offs for which compensation is paid are nearly always for the benefit of the company. In closing a plant, for example, the management ordinarily expects to effect economies. There is no reason to expect that these economies shall be obtained wholly or mainly at the expense of the employees. Is it less reasonable for the company to pay something for displaced labor than for it to pay overhead charges on idle machinery?

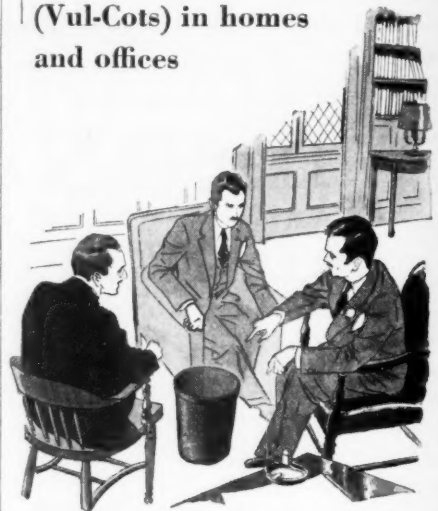
It is not out of place to point out that the obligation toward displaced workers which is being assumed voluntarily by forward-looking American employers is enforced by law in many foreign countries. Particularly in Latin-America, labor codes prescribe advance notice of dismissals, or lay-off compensation, or both, which in some instances go considerably beyond the most liberal practices of North American employers.

Labor unions in some cases have given encouragement and cooperation in devising methods of indemnifying laid-off members, especially those who have been displaced by adoption of machinery and modernization of processes. A noteworthy instance of this occurred in the men's clothing industry when the increasing use of cutting machines reduced the demand for cutters. The Amalgamated Clothing Workers of

Thinking in the right material

Hunting for every idea that can give their own company any advantage in this new competition of value-giving,—more and more men and managers are analyzing, with "the manufacturing mind," every product in which Vulcanized Fibre or Phenolite is used. Picking ideas wherever they find them. And finding plenty.

What they can learn from modern waste-baskets (Vul-Cots) in homes and offices



WITHOUT vulcanized fibre—the right kind of NVF—the perfected waste-basket of today would not have been possible.

Vul-Cot, remember, swept its own field; revolutionized an industry, because of many superiorities, big and little, that make a total too great for buyers to disregard. And every one of Vul-Cot's superiorities is due to its being made of the right material.

Vulcanized Fibre for electrical insulation and mechanical uses. For forming and all cutting operations. Ten standard kinds including Peerless Insulation and Leatheroid. Also Phenolites,—reinforced laminated Bakelite materials,—of many special formulae. Direct NVF representatives in principal cities of the United States, Canada, and Europe.

NATIONAL VULCANIZED FIBRE CO.
WILMINGTON, DELAWARE

NVF

No real advancement—in
product, material, or work
—is ever possible without
**thinking in the
right
material**

When writing please mention Nation's Business

America negotiated with several large employers, with the result that joint funds were raised for the payment of compensation wages. Cutters released by one firm were paid \$500 each, with the understanding that they were to leave the clothing industry and seek other means of livelihood for themselves and their families.

Cash compensation, while a long step in advance of former haphazard practices, provides only a partial solution for the problems confronting the man dislodged from his job. The most liberal schedules adopted in any company are woefully inadequate if the termination wage is looked upon as provision for the worker's future. A few hundred dollars, or even a thousand or two, is soon exhausted; the plight of the jobless man is then little better than it would have been, a few weeks or months earlier, if he had received no indemnity at all from his former employer.

Affords a breathing spell

THE greatest value of the termination wage, from the standpoint of the man who receives it, is that it gives time to look about for a new job. Finding a job, therefore, is a matter of supreme importance. Here the employer can help, and often he does help most effectively.

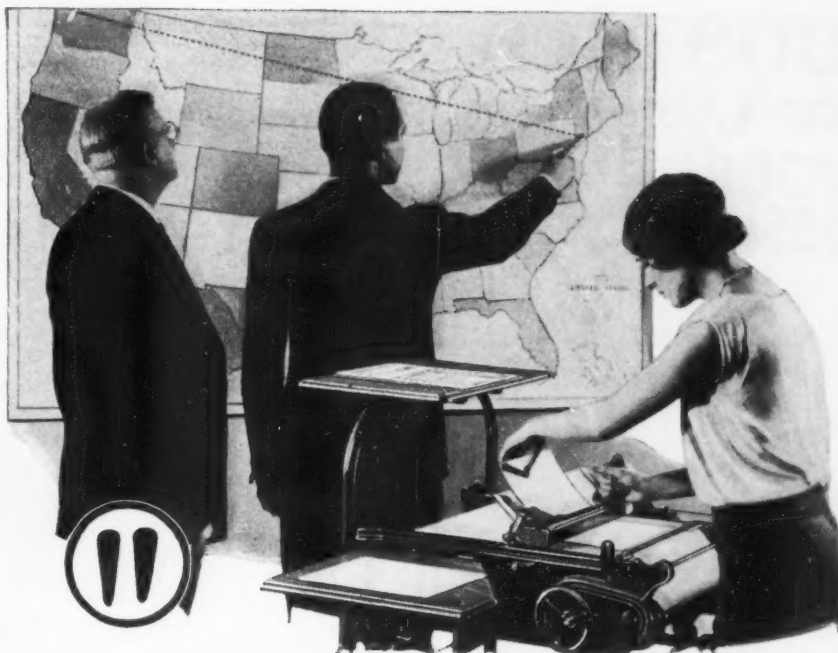
In cases of plant shut-down, some companies have resorted to every means available in aiding their dismissed workers to make new connections. Ample notice has been given, and sometimes management and employees' representatives have taken counsel together on ways and means of relocating the affected wage-earners.

Local chambers often help

SOME companies have conferred with local chambers of commerce and other public organizations in behalf of men threatened with dismissal.

In at least one or two cases, employment agents of competing concerns have been invited to set up their desks in the factory before it stopped operations, and take their choice of the wage-earners.

By these methods, coupled with lay-off compensation and with increased attention to regularization of employment and production, it is to be expected that American industry in coming years will make real progress in conquering the workingman's most formidable foe—the peril of enforced unemployment.



We type orders in Seattle . . . Ditto copies invoices in New York . . . without re-writing!

" . . . and the same with orders from all our branch offices. And that isn't all! Our orders are filled 48 hours quicker than before. We save \$3,000 a year in our billing, and eliminate errors. One Ditto machine does this, costing less than *one-tenth* of our annual savings! Here's precisely what happens:

"With Ditto, our orders, billing, shop costs and production records, shipping and sales analysis forms are all governed by one system and one control—all copied from the original writing. Needless typing is done away with. All office and plant operations are speeded up; within one hour after order is received, it is billed and identical copies are on the way to all departments."

Billing, in all its phases, invariably improves by applying the Ditto principle . . . fits all lines of business without disturbing existing systems.

The coupon attached to your letterhead will bring a free booklet, "Cutting Costs With Copies"—tells how Ditto handles purchase-receiving and factory production sets, card records and payroll forms, and many other routine operations.

DITTO INCORPORATED

Duplicating and Billing Equipment

2270 W. Harrison Street

Chicago, Illinois



Ditto Incorporated, 2270 W. Harrison St., Chicago, Illinois
You may send your booklet, "Cutting Costs With Copies."

Name _____

Address _____

City _____

BOSTITCH

belongs on
YOUR DESK



The Bostitch way is the surest way to keep related papers together—safe from loss, safe from catching on to other papers. Although securely fastening the papers, the staples can easily be removed when desired.

The Bostitch fastener, a product of the world's largest manufacturer of wire fastening machines and staples, is made of steel throughout with every wearing part hardened, extremely light in weight and easy to operate.

A world-wide organization is ready to advise you how stapling and stitching devices can be used to best advantage in office as well as factory.

BOSTITCH SALES COMPANY EAST GREENWICH, R. I.

Send free catalog listing over 100 models check here ☐

Send B-1 Bostitch machine and 5000 Bostitch staples for 10 days' trial for which I enclose ☐ check for \$6.00. The money will be promptly refunded if I am not entirely satisfied.

Name

Address

City

State

EXECUTIVES! Stop "fishing" for IMPORTANT PAPERS!

Have them available instantly...yet keep desk clear to aid clear thinking!

AMAZING how "The Executive" Desk Folio keeps all current papers at fingertips in a single, compact, handsome leather book. Only 10 1/2 x 13 1/2 yet surprisingly spacious. Pockets metal-tabbed for instant reference. Papers cannot fall out. Ringless. Keeps desk efficiently clear. Prevents visitors peeping at confidential matters. Take "The Executive" to meetings, home, on trips. Beautifully sewn, embossed. Send for it FREE on five day trial. Write TODAY specifying model! The "Executive"—6 pockets. Int. lthr. \$5—gen. antique cowhide, silk-lined, \$10—De Luxe Model, gold-tooled, \$17.50. MEVI, Dept. 7, 545 Fifth Ave., New York, N. Y.

SENT
FREE
ON APPROVAL

AN INDEX of Nation's Business articles for your files will be mailed on request.

THROUGH THE EDITOR'S SPECS



TALL Corn Has Unsung Rivals in Iowa" by John M. Henry, which appeared in the August issue of NATION'S BUSINESS, is finding a somewhat mixed reception. The purpose of the article was simply to point out that a state such as Iowa, known chiefly as an agricultural section, may also be important industrially. In the near future a similar article will appear in NATION'S BUSINESS calling attention to the agricultural importance of New York, which has been thought of principally as an industrial and financial leader.

Obviously, a complete and detailed summary of Iowa's industries could not be included in a brief article. It was not attempted. The writer was making a sketch rather than a photograph. He was seeking to show the scope and variety of the industrial development instead of presenting a statistical report.

Nevertheless, many Iowans felt that their own city or town or industry should have been mentioned or emphasized.

"I would like to have you tell me why the industries of Muscatine were not mentioned. An early response will be appreciated," writes a citizen of Muscatine.

"It will be objectionable to a large number of manufacturers due to the lack of knowledge of the industries in Iowa by the writer," says another.

A number of Iowa correspondents named the plants which they felt should have been mentioned. A few farmers were among those who took the trouble to tell us that they appreciated mention of the state as an industrial as well as an agricultural district. Here are some of the firms and the cities which, we were told in 120 or more letters, should have been accorded some mention in Mr. Henry's article:

Wallace Publishing Company, Des Moines.

Louden Machinery Company, Iowa Malleable Iron Company, Dexter Washing Machine Company, Fairfield Glove and Mitten Company—all of Fairfield.

The Fisher Governor Company, Marshalltown.

John Morrell & Company (packers), Dain Manufacturing Company (farm implements), Barker Produce Equipment Company, Ottumwa Iron Works, Ottumwa Box Car Loader Company, Hardscog Drill Company—all of Ottumwa.

French & Hecht, Inc. (metal wheels), of Davenport.

The Bettendorf Company (freight cars), Bettendorf.

Armour & Company, Swift & Company, and Cudahy & Company—all of Sioux City.

Mona Motor Oil Company, of Council Bluffs.

Iowa Soap Company, Burlington.

Rath Packing Company, The Construction Machinery Company, Herrick Refrigerator Company, C. K. Cropper Company (juvenile furniture), The Hinson Manufacturing Company (auto accessories), The Armstrong Manufacturing Company (drilling equipment)—all of Waterloo.

Rolscreen Company (window screens), The Garden City Feeder Company (farm implements), The Woodrow Washing Machine Company—all of Pella.

The millwork factories of Dubuque and Clinton.

The industries of Muscatine, including pearl buttons, woodwork and gravel.

Packing and canning plants of Sioux City, Des Moines, Waterloo, Mason City, Davenport, Cedar Rapids, and Ottumwa.

Cereal manufacture of Cedar Rapids.

The industries of Ottumwa.

Sewer pipe and clay plants of What Cheer.

Tank heaters, pearl buttons, cloth charts and calendars of Washington.

A representative of a tornado insurance company tells us that he travels into every county in the state, and that there is an Iowa product which Mr. Henry should have mentioned—her sunsets. Several readers say that he should

have told of the hard-road program being carried forward in the state.

A Washington resident names politicians as among the town's products which are exported. "We are proud of our tall corn, our hogs, our cattle, and our farms, ashamed of our Senators, and have a growing pride in our growing factories," says a subscriber from Chariton. The state's \$50,000,000 power plant should have caught the writer's notice, according to a Keokuk reader.

Here are some typical comments from readers of Mr. Henry's article:

TO THE EDITOR OF NATION'S BUSINESS:

In your August number we notice an article by John M. Henry entitled "Tall Corn Has Unsung Rivals in Iowa." This is a very interesting article, but in the case of Pella we think it calls for a correction.

The article states that Pella is a town of 400 with three bologna factories. The writer of the article was evidently grossly misinformed, as Pella is a town of 3600 with two bologna factories, and many other industries.

We could not allow the misstatement made in the article to go unchallenged and feel that we should not as a matter of civic pride let it go uncorrected.

HUGO W. KUYPER
Secretary

Chamber of Commerce
Pella, Iowa

TO THE EDITOR OF NATION'S BUSINESS:

Mr. Henry's article in the August NATION'S BUSINESS is easy to read and rather entertaining, but to my way of thinking, as well as others with whom I have visited, Mr. Henry has rather "messed it up."

He has omitted naming many of the largest and best factories and has emphasized bologna factories, fly swatters, soda water factories, sparrow traps, one man factories, gravel pits, stock raising, etc.

I am inclined to think this article will cause much merriment among the manufacturers of other states where manufacturing firms seem to hold so important a place. Too much of a joke. Not serious enough to make an impression that brings about profound respect for our factories or their output.

R. B. LOUDEN
President

The Loudon Machinery Company
Fairfield, Iowa

TO THE EDITOR OF NATION'S BUSINESS:

"Tall Corn Has Unsung Rivals in Iowa" is, of course, a very interesting article and it lets the public know that in Iowa, besides corn, we produce washing machines, ducks, stock candy, fountain pens, fireworks, etc., but for some reason or other, the writer concealed the fact that the largest industry in the state is the meat packing business.

Nevertheless, I will have to admit that he did mention the word "meat" once and three bologna factories. Furthermore, he also mentioned the fact that Swift & Company raise 75,000 ducks a year at Clinton.

I know that a great many people who

read this article wondered why no reference was made to the great factories in Iowa. Possibly it is your intention to cover them in another article, but if so, I think it would have been well to have mentioned the fact.

T. HENRY FOSTER
President

John Morrell & Co.
Ottumwa, Iowa

TO THE EDITOR OF NATION'S BUSINESS:

That "Tall Corn Has Unsung Rivals in Iowa" was not news to the writer. As a resident of the state, I feel that the pictures of the industrial activities and the mentioning of the world-wide distribution of its products to be a worth-while service to the state and to the readers of NATION'S BUSINESS in other states, who too often look upon our state as being one where corn and hogs are raised.

Our state is making progress industrially and agriculturally notwithstanding the fact that it has received a lot of unfavorable publicity through our not too well informed Senator, Smith Wildman Brookhart.

C. A. SCHNAEBELEN
President

Hawkeye Lightning Rod Company
Cedar Rapids, Iowa

♦ For Profit

TO THE EDITOR OF NATION'S BUSINESS:

As a reader of your instructive magazine, I desire to thank you for the pleasure you have given your readers by securing Gamaliel Bradford's great sketch of Thomas A. Edison. I am sure that no writer in America can surpass Gamaliel Bradford in his style and finish. I always try and secure everything he writes for it is the best that can be had in the way of literature.

Your magazine is in a class by itself. I thank you for the mental standard that you have set before Americans. All who read your magazine will profit by it, I am sure.

OLIVER ORR

Macon, Georgia

♦ Danger Signals

TO THE EDITOR OF NATION'S BUSINESS:

Probably the highest service you render is to point out the beginning of changes that are taking place and illustrating what may be expected in the near future. Of course, there are a number of people who may and do take advantage of discounting some of the facts of the future. There are others, however, who are so situated they will have to make the best of what they have in the hope that in approaching changes they may be able to adjust themselves to meet some of the new conditions.

You are publishing a remarkable magazine, very informative, highly instructive, and you are hoisting danger signals that most of the people in the United States would never know or hear of except through magazines of the character you are issuing, of which yours is beyond question the best.

W. CLAYTON
Vice President

Spreckels Companies
San Diego, Calif.

JOHN HANCOCK SERIES

BUSINESS CREDIT

IF the mainspring of a business is the brains and driving force of some man, there is no surer, quicker way to strengthen the credit position of that firm than by taking adequate Business Insurance on his life.

This matter needs careful consideration. May we, without obligating you in any way, provide some general information on this subject? Address:

INQUIRY BUREAU

John Hancock
LIFE INSURANCE COMPANY
OF BOSTON, MASSACHUSETTS

197 Clarendon St. Boston, Mass.

Please send information regarding Business Credit.

Name.....

Address.....

N. B. OVER SIXTY-SEVEN YEARS IN BUSINESS

Esterbrook
PENS

A man's
pen. Big,
comfortable
and
long-
wearing



Have your secretary send 10c for assorted samples to find your personal pen. Esterbrook Pen Co., 50 Cooper Street, Camden, N. J.



WORTH

thousands of dollars to you

this valuable book containing information worth thousands of dollars, is free to executives responsible for reducing expenses and increasing profits.

Banish «business nightmares» . . .

..... that result from buried facts and figures! Are you taxing your brain power trying to remember details? Do you worry and wonder where that «hole in the dyke» is . . . that leak of small losses that is constantly growing larger and wasting more of your profits? Do you wonder where and how you can safely cut overhead? Can you tell if your investment in your stock department is too large or too small?

This book will show you proven methods for solving these and many other important problems. «Modern Business Control» will help you banish forever «business nightmares».

Learn what others have done . . .

..... in solving their record problems . . . how they have reduced expenses and made their records pay dividends through the use of modern record control . . . you can do the same. Just send for your copy of «Modern Business Control» . . . today. It will be sent to you free without any obligation whatsoever . . . and is worth thousands of dollars to any modern executive.

Globe-Wernicke

CINCINNATI, OHIO

Manufacturers of Steel Filing Cabinets, Desks, Tables, Steel and Wood Shelving, Storage Cabinets and Wardrobes, Visible Records, Sectional Bookcases, Stationers' Products, Filing Supplies, Library Equipment, Bank Equipment, Special Steel Equipment. Write for catalogs.

THE GLOBE-WERNICKE COMPANY, Cincinnati, Ohio
Automatic Record Control Division No. 125

GENTLEMEN: Please send me without obligation your book «Modern Business Control». (Free of any expense)

Name Firm Name

Position Address

City State

When writing to THE GLOBE-WERNICKE COMPANY please mention Nation's Business

♦ Discrimination

TO THE EDITOR OF NATION'S BUSINESS:

I am a reader and subscriber of your most valuable magazine and also a former executive with a large business house, and I desire to bring to your attention and that of your readers a matter which will undoubtedly interest you as well as your readers.

Within the last few years a good deal of employment discrimination exists in New York more than anywhere else in the country against people of the Jewish faith by employment agencies, by big business generally, and more so on the part of bankers, financiers, commercial houses of note, and public service corporations.

We are all aware of the fact that the business schools of the leading colleges in the country are turning out yearly thousands of students who are particularly and solely trained for executive positions; which under the conditions as mentioned before, they may never be able to get.

Although these boys and girls have during their courses achieved high rank in scholarship and have unusual ability, nevertheless, this doesn't seem to count and there is that social and religious discrimination which should not exist in a country like ours established on the principles upon which same was established.

It is high time that we take notice of the fact, and no longer ignore it.

It is the duty of all fair-minded Americans to bring this matter out in the open, fight for a remedy for it and put an end to the unjust discrimination now prevailing.

In order that no accusation be brought that the writer of these lines is either radical or a bolshevik, which is the general accusation brought against one who fights injustice, I desire to call to your attention the fact that I was an associate member of the Legal Advisory Board during the World War, appointed by the Government, also a member of the Naval Reserve force during the same period in charge of construction and supplies and commended for services rendered and honorably discharged from same.

JOSEPH BERMAN

Attorney
New York City

♦ Snobbery

TO THE EDITOR OF NATION'S BUSINESS:

On page 120 of the June issue of NATION'S BUSINESS, I read: «Our own Uncle Sam apparently is not the only governmental dispenser of information that is sometimes of questionable usefulness, if we may believe the Canadian «Financial Post.» Following this are two paragraphs speaking caustically of the issuance by the Ontario Department of Agriculture of a treatise on Amateur Dramatics.

Amateur Dramatics has taken a strong hold upon the imagination and appeals to the idealism of the American rural folk, whether these be under the Stars and Stripes or those who sing «God Save the King.» Having, as a young man, been a farmer, the son of a pioneer who lived close to the frontier, I know the value of amateur dramatics, of the old-fashioned spellin' bee, the lyceum created by our-

selves; the "little old red school house" was our place of meeting.

The big return from those of our gatherings and of those of today was, and is, not that there are developed forensic or histrionic stars—few and far between are these discovered—but the awakened social consciousness.

Some day, perhaps, farming may come into its own; town may recognize country as important socially as it looks upon itself as being; it is surely the sacredness of tradition—in this connection a legend founded in snobbery, that still militates against the two groups recognizing each the other's social worth. When this tradition shall have been worn away then shall we be a social unit.

C. P. STANLEY

*The Four Wheel Drive Auto Company,
Clintonville, Wisconsin*

♦ Chain Information

TO THE EDITOR OF NATION'S BUSINESS:

This department maintains a Clipping Bureau and free Package Loan Library through which we loan information to persons throughout the State of Oklahoma. We have clipped from your publications the articles listed below, and would like to have permission to mimeograph these in order that we may have ample copies to supply the demand:

Are Chains the Enemies of the Manufacturer?, R. W. Lyons, May, 1930.

Chains Have Evils, Too—, W. T. Grant, September, 1929.

The high schools are debating the subject of Chain Stores and consequently we need several duplicate copies of each in order to have enough to supply their requests. Your kindness in granting permission to mimeograph these articles to loan to these youngsters will be appreciated.

HERBERT SCOTT
Director

*Department of Public Information
University of Oklahoma
Norman, Okla.*

♦ Postal Expenses

TO THE EDITOR OF NATION'S BUSINESS:

If instead of raising first-class postage one-half cent, rural free delivery could be done away with, no extra expense would be felt by anybody except rural carriers.

It is time the Post Office Department learned of the expense of delivering mail-order catalogs, circulars and occasionally a letter on routes where a large number of the farms are abandoned.

There is no free-delivery in small towns, but the dwellers therein are to have their postage raised twenty-five per cent for the benefit of people who get little or no mail. Why is it the Government always looks for a new source of revenue instead of curtailing expenses?

EDDY C. GILBERT

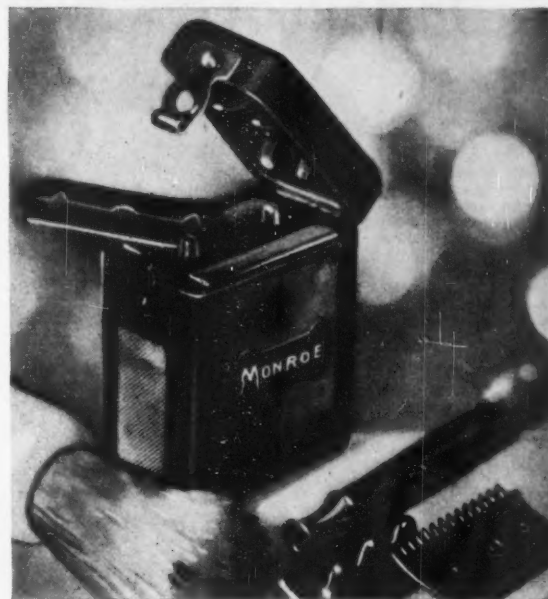
Rushford, N. Y.

IF Mr. J. D. Holmes, who sent us an article called "Controlling Floods in the Desert," will send us his address we will be glad to write him concerning the article.

—THE EDITOR.

now a **MAGNET** sharpens blades!

and offers
the *ideal*
Xmas gift
for 1930!



A LITTLE miracle of novelty and attractiveness—plus five guaranteed years of daily usefulness and highly personal service—the amazing new MONROE Magnetic Sharpener is this year's perfect good will token for any house

that offers seasonal remembrances to its men friends.

No honing, stropping, or crank-turning—no time and no work! A blade is *merely left between shaves* in this handsome brown bakelite device, and a powerful *magnet*, operating on a new patented principle, gives it a delightful keenness never before mechanically possible!

Enter Magnet—Exit Strop

The MONROE *magnet* draws the more or less distorted microscopic "teeth", into which every blade-edge is split, into *glass-smooth alignment* against its polished poles. It performs much better than even your barber's soaped leather strop, simply because no strop is microscopically smooth.

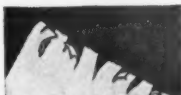
To any standard size double-edge blade, old or new style, it brings unprecedented shaving efficiency and ease, and the blades last many times as long. With due respect for the past year's many improvements in razors, no one who tries the MONROE will deny that it is *the* revolutionary advance of the day in shaving comfort.

Novelty—Merit—Price

Sensationally new, yet proved and *known*. Collier's, Liberty, Literary Digest, and Saturday Evening Post, have already carried MONROE advertisements as large or larger than this, and will carry more before Xmas.

The Holiday packing will be in a handsome de luxe gift box. The strictly maintained retail price is \$2.50. But this does not apply to orders in quantity, which can be quoted on a sharply different wholesale basis... The coupon below should be accompanied by your letterhead. There will be no other appearance of this advertisement.

Part of a blade-edge
greatly magnified



1—After
a shave.

2—After
"Monroe-ing"



What users say

Each phrase below from a different *voluntary* letter of appreciation. Names and addresses on request.

"The Monroe Sharpener has unfailingly given me a smoother shave than I had hitherto dreamed was possible."

"Each morning, I open up the wonder-box and say to myself, 'Here's where you fall down.' But, to my absolute amazement, the d—n blade improves with each treatment."

"It wasn't so much the 52 shaves from one blade, as the kind of shaves that amazed me."

"Shaving is quicker and better in every way. There is that delightful sensation of smoothness without smarting which results only from a perfect blade."

"As the owner of a very stiff beard with tender skin, I have searched for years for a razor blade, or sharpener for blades, that would allow me to enjoy a clean, painless shave. You have given me the above results through my Monroe."

"In three months, I have used only two razor blades, and never before was I able to get such satisfaction in shaving with a safety razor even when I used new blades."

Free Test Coupon

Gift Division, MONROE SPECIALTY CO.
119 W. 23rd St., New York.

Kindly quote price of *Monroe Sharpener* in quantity of..... Also send one *Monroe* for inspection and free 20-day trial. This sample will either be returned or remitted for by us.

FIRM.....
ADDRESS.....
BY.....

When writing to MONROE SPECIALTY CO. please mention *Nation's Business*

Index of Advertisers

October, 1930

	PAGE		PAGE
Acme Card System Company.....	113	John Hancock Mutual Life Ins. Co.....	215
Addressograph Company.....	85	Joslin, A. D., Manufacturing Co.....	144
Aetna Casualty & Surety Company.....	194		
Agricultural Insurance Company.....	125	Kansas City Chamber of Commerce.....	115
Alexander Hamilton Institute.....	7	Kemp, C. M., Mfg. Co.....	156
Allis-Chalmers Manufacturing Co.....	138	Kimberly-Clark Corporation.....	81-82
Aluminum Company of America.....	118		
American Appraisal Company, The.....	144	Lambert Pharmacal Company.....	206
American Clip Co.....	142	Lewis Corporation.....	205
American Express Company.....	184	Los Angeles Chamber of Commerce.....	1
American Institute of Steel Construction.....	137	Louden Machinery Co., The.....	161
American-LaFrance & Foamite Corp.....	107	Louisville Drying Machinery Co., Inc.....	112
American Multigraph Sales Company.....	58-59		
American Sheet & Tin Plate Company.....	185	Marchant Calculating Machine Co.....	97
American Telephone & Telegraph Co.....	220	Metropolitan Life Insurance Company.....	70
American Warehousemen's Association.....	177	Mehl.....	214
Arc Welders Association.....	3rd Cov.	Monroe Specialty Co.....	217
Art Metal Construction Company.....	136	Moore, John C., Corp.....	207
Austin Company, The.....	10	Morrison, Geo., Company.....	142
		Multiplex Display Fixture Co.....	192
Bakelite Corporation.....	73	Mutual Fire Insurance.....	87
Beauharnois Power Corporation.....	157		
Blaw-Knox Company.....	179	Natl. Assn. of Flat Rolled Steel Mfrs.....	76-77
Bostitch Sales Company.....	214	National Blank Book Company.....	173
Bostwick-Goodell Co., The.....	196	National Cash Register Company, The.....	141
Broderick & Bascom Rope Company.....	126	National City Company, The.....	190
Buffalo Optical Co.....	144	National Power Show.....	193
Burroughs Adding Machine Company.....	89	National Vulcanized Fibre Company.....	212
Bush Terminal Company.....	183	Newton Steel Co., The.....	133
		Niagara Blower Company.....	212
Californians Inc.....	94-95	Niagara Hudson Power Corporation.....	121
Canadian Pacific Railway Company.....	166	Norton Company.....	169
Central Mfrs. Mutual Insurance Co., The.....	154		
Chevrolet Motor Company.....	53	Oklahoma Natural Gas Corporation.....	172
Cities Service Oil Company.....	178	Otis & Co.....	193
Cleveland Hotel.....	164		
Colytt Laboratories, The.....	206	Pacific Gas and Electric Company.....	123
Commercial Investment Trust Corp.....	188	Package Machinery Company.....	117
Consolidated Expanded Metal Companies.....	182	Page Fence Association.....	198
Crane & Co.....	180	Peelle Company, The.....	140
Cutler-Hammer, Inc.....	155	Philadelphia Business Progress Assn.....	181
		Philadelphia & Reading Coal & Iron Co.....	75
Detex Watchclock Corporation.....	90	Phoenix Mutual Life Insurance Company.....	199
Diamond Chain & Mfg. Co.....	197	Pittsburgh Steel Co.....	186
Dick, A. B., Company.....	2	Pneumatic Scale Corporation, Ltd.....	61
Dictaphone Sales Corporation.....	159	Portland Cement Association.....	219
Dictograph Products Company, Inc.....	154	Postage Meter Company, The.....	100
Ditlo Incorporated.....	213	Pressed Steel Tank Company.....	176
Dodge Brothers Corporation.....	67		
Duke Power Company.....	145	Rastetter, Louis, & Sons Co.....	144
		Reading Iron Company.....	79
Ediphone, The.....	116	Remington Rand Business Service Inc.....	57, 110-111, 206
Edison Lighting Institute.....	65	Richards-Wileox Mfg. Co.....	2nd Cov.
Egry Register Company, The.....	203	Robbins & Myers, Inc.....	109
Elwell-Parker Electric Co., The.....	162		
Encyclopaedia Britannica.....	3	S. K. F. Industries, Incorporated.....	171
Engraved Stationery Mfg'r's. Assn.....	205	Shakeproof Lock Washer Company.....	195
Erie Railroad System.....	93	Shawinigan Water & Power Co., The.....	140
Ernst & Ernst.....	142	Smith, L. C., & Corona Typewriters, Inc.....	201
Esterbrook Pen Co.....	215	Special Production Machines, Inc.....	63
		Stone & Webster Engineering Corp.....	83
Fairbanks, Morse & Co.....	147	Sturtevant, B. F., Company.....	132
Felt & Tarrant Mfg. Co.....	160		
Ferguson, H. K., Company, The.....	127	Teletype Corporation.....	135
Ferodo and Asbestos Incorporated.....	66	Tinken Roller Bearing Company.....	4th Cov.
First National Bank in St. Louis.....	192	Todd Company, The.....	91
Flextime Corporation.....	152	Truscon Steel Company.....	102
Ford Motor Company.....	151	Truscon Steel Co., Pressed Steel Div.....	120
		Typewriter Div., Remington Rand.....	57
Georgia Power Company.....	208		
Geuder, Paeschke & Frey Co.....	153	United Founders Corporation.....	191
Globe-Wernicke Company, The.....	216	United Fruit Company.....	208
Goodrich, B. F., Rubber Company, The.....	163	United States Lines.....	148
Goodyear Tire & Rubber Co., Inc., The.....	69		
Graff, George B., Co.....	192	Vacuum Oil Company.....	4
Grinnell Company, Inc.....	131		
		Western Electric Company.....	129
Hammermill Paper Company.....	175	Westinghouse Electric & Mfg. Company.....	149
Hercules Powder Company.....	99	Weston, Bryon, Company.....	202
Holophane Company.....	55	Weyerhaeuser Sales Company.....	167
		Wickwire Spencer Steel Company.....	92
Industrial Brownhoist Corporation.....	108	Wilson-Jones Company.....	211
Industrial Club of St. Louis.....	209	Worthington Pump & Machinery Corp.....	143
International Business Machines Corp.....	8	Wright, E. T., & Co., Inc.....	207
International Correspondence Schools.....	104		
International Harvester Co. of America.....	103	Youngstown Pressed Steel Co., The.....	165
Iron Fireman Manufacturing Company.....	187		
Irving Trust Company.....	6		

THIS is one of a series of editorials written by leading advertising men on the general subject of advertising

Style is Advertising

WHAT does style mean? Nothing but a distinctive form. A popular style is a distinctive form that has a particularly strong appeal. Obviously advertising needs this appeal—it must have style. Tone, manner and looks must be such as will get to the public. Advertising style is not right if it merely mirrors the manufacturer's mind or the copywriter's personality. A style that is stereotyped immediately becomes old-fashioned. It's not up-to-date. It won't work.

But there's more to advertising than copy and art—and in other senses too it's true that "advertising is style." Styling a product or a package is as important as styling the advertising message for the product—and this also is advertising, for *to style* means giving a distinctive character that will arouse interest and provoke purchase.

Styling a product or styling an advertisement is then mere business common sense—which is to say the rarest, most precious, most indispensable thing in business.

Advertising asks business these questions—and helps answer them:

Are your copy and art styled right?

Are your package and goods styled?

Is your method of distribution in style? Is it up-to-date?

Have you styled your method of compensating salesmen? Does it work?

Are your sales territories post-bellum or pre-war style? Are they designed for profitable operation today and tomorrow?

In this broad constructive sense, style is indispensable to advertising. Style is advertising. Advertising is style.

RICHARD WEBSTER

Vice President

Reimers & Whitehill, Inc.